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 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  NOV 21  CAS patent coverage to include exemplified prophetic
                  substances identified in English-, French-, German-,
                  and Japanese-language basic patents from 2004-present
 NEWS  3  NOV 26  MARPAT enhanced with FSORT command
 NEWS  4  NOV 26  CHEMSAFE now available on STN Easy
 NEWS  5  NOV 26  Two new SET commands increase convenience of STN
                  searching
 NEWS  6  DEC 01  ChemPort single article sales feature unavailable
 NEWS  7  DEC 12  GBFULL now offers single source for full-text
                  coverage of complete UK patent families
 NEWS  8  DEC 17  Fifty-one pharmaceutical ingredients added to PS
 NEWS  9  JAN 06  The retention policy for unread STNmail messages
                  will change in 2009 for STN-Columbus and STN-Tokyo
 NEWS 10  JAN 07  WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
                  Classification Data

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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FILE 'HOME' ENTERED AT 16:09:50 ON 27 JAN 2009

=> file medicine
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FILE 'USPAT2' ENTERED AT 16:10:14 ON 27 JAN 2009
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=> s inhibit (s)(phagocytic cell) or (white cell)
  20 FILES SEARCHED...
L1   32138 INHIBIT (S)(PHAGOCYTIC CELL) OR (WHITE CELL)

=> s myocardial infarction
L2   630538 MYOCARDIAL INFARCTION

=> s l1 and l2
L3   1081 L1 AND L2

=> s micron and micron (N5) infarction
MISSING OPERATOR 'MICRON (N5'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s micron and micron (s) infarction
L4   122 MICRON AND MICRON (S) INFARCTION

=> s 1 micron
L5   91222 1 MICRON

=> s micron (s) infarction
L6   122 MICRON (S) INFARCTION

=> s l5 and l6
L7   28 L5 AND L6

=> s l3 and l7
L8   0 L3 AND L7

=> dup rem
ENTER L# LIST OR (END):l7
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, DRUGMONOG2, IMSPRODUCT'.
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L9 28 DUP REM L7 (0 DUPLICATES REMOVED)

=> s l9 and pd<2004
6 FILES SEARCHED...
14 FILES SEARCHED...
15 FILES SEARCHED...
'2004' NOT A VALID FIELD CODE
'2004' NOT A VALID FIELD CODE
20 FILES SEARCHED...
L10 10 L9 AND PD<2004

=> d l10 1-10 ibib, kwic

L10 ANSWER 1 OF 10 MEDLINE on STN
ACCESSION NUMBER: 1990074790 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2531621
TITLE: Morphometric evaluation of the time course of right ventricular hypertrophy after left coronary artery ligation in rats.
AUTHOR: Spadaro J; Cicogna A C; Tucci P J; Cury P R; Montenegro M R
CORPORATE SOURCE: Departamento de Clinica Medica, Faculdade de Medicina de Botucatu, Universidade Estadual Paulista, Botucatu, SP, Brasil.
SOURCE: Brazilian journal of medical and biological research = Revista brasileira de pesquisas medicas e biologicas / Sociedade Brasileira de Biofisica ... [et al.], (1989) Vol. 22, No. 4, pp. 517-22.
Journal code: 8112917. ISSN: 0100-879X.
PUB. COUNTRY: Brazil
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199001
ENTRY DATE: Entered STN: 28 Mar 1990
Last Updated on STN: 3 Mar 2000
Entered Medline: 17 Jan 1990
SO. . . medical and biological research = Revista brasileira de pesquisas medicas e biologicas / Sociedade Brasileira de Biofisica ... [et al.], (1989) Vol. 22, No. 4, pp. 517-22.
Journal code: 8112917. ISSN: 0100-879X.
AB . . . 0.062 g, P less than 0.05), while right ventricular weight and fiber diameter suffered no change. 3. Eight days after infarction , heart weight (0.781 +/- 0.127 g vs 0.856 +/- 0.100 g, P greater than 0.05) as well as right ventricular fiber diameter (16.5 +/- 1.0 microns vs 17.5 +/- 2.1 microns, P greater than 0.05) and left ventricular weight did not differ between sham-operated animals and animals with left coronary obstruction.. . . in infarcted animals (0.168 +/- 0.026 g vs 0.242 +/- 0.017 g, P less than 0.05). 4. Twenty-one days after infarction, right ventricular weight (0.198 +/- 0.034 g vs 0.316 +/- 0.118 g, P less than 0.05), heart weight (0.864 +/- 0.095 g vs 0.985 +/- 0.105 g, P less than 0.05) and right ventricular fiber diameter (15.0 +/- 1.8 microns vs 21.3 +/- 2.3 microns, P less than 0.05) were significantly increased in infarcted animals, whereas left ventricular weight (0.665 +/- 0.065 g vs 0.669. . .

L10 ANSWER 2 OF 10 USPATFULL on STN
ACCESSION NUMBER: 1999:72291 USPATFULL

10607623

TITLE: Protein stabilized pharmacologically active agents, methods for the preparation thereof and methods for the use thereof

INVENTOR(S): Desai, Neil P., Los Angeles, CA, United States
Tao, Chunlin, Beverly Hills, CA, United States
Yang, Andrew, Rosemead, CA, United States
Louie, Leslie, Montebello, CA, United States
Zheng, Tianli, Culver City, CA, United States
Yao, Zhiwen, Culver City, CA, United States
Soon-Shiong, Patrick, Los Angeles, CA, United States
Magdassi, Shlomo, Jerusalem, Israel

PATENT ASSIGNEE(S): Vivorx Pharmaceuticals, Inc., Santa Monica, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5916596		19990629	<--
APPLICATION INFO.:	US 1996-720756		19961001	(8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-412726, filed on 29 Mar 1995, now patented, Pat. No. US 5560933 which is a division of Ser. No. US 1993-23698, filed on 22 Feb 1993, now patented, Pat. No. US 5439686

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Levy, Neil S.
ASSISTANT EXAMINER: Benston, Jr., William E.
LEGAL REPRESENTATIVE: Gray, Cary, Ware & Freidenrich, Reiter, Stephen E.
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 1774
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . absence of any polymeric core material for the particles. The procedure yields particles with a diameter of less than about 1 micron. The use of specific composition and preparation conditions (e.g., addition of a polar solvent to the organic phase), and careful. . .

SUMM . . . particles are encased in a polymeric shell formulated from a biocompatible polymer, and have a diameter of less than about 1 micron. Invention colloidal systems are prepared without the use of conventional surfactant or any polymeric core matrix. In a presently preferred. . .

SUMM . . . namely the spleen, lungs and liver. The particulate matter contained in normal whole blood comprises red blood cells (typically 8 microns in diameter), white blood cells (typically 6-8 microns in diameter), and platelets (typically 1-3 microns in diameter). The microcirculation in most organs and tissues allows the free passage of these blood cells. When microthrombii (blood clots) of size greater than 10-15 microns are present in circulation, a risk of infarction or blockage of the capillaries results, leading to ischemia or oxygen deprivation and possible tissue death. Injection into the circulation of particles greater than 10-15 microns in diameter, therefore, must be avoided. A suspension of particles less than 7-8 microns, is however, relatively safe and has been used for the delivery of pharmacologically active agents in the form of liposomes. . .

DRWD wherein the average diameter of said particles is no greater than about 1 micron.

DRWD . . . that the "shell thickness" of the polymeric coat is

approximately 25 nanometers for a coated particle having a diameter of 1 micron (1000 nanometers). In contrast, microspheres of the prior art do not have protein shells, but rather, have protein dispersed throughout. . .

DRWD . . . 10 microns. A cross-sectional diameter of less than 5 microns is more preferred, while a cross-sectional diameter of less than 1 micron is presently the most preferred for the intravenous route of administration.

CLM What is claimed:

21. A method according to claim 20 wherein said particles have an average diameter of less than 1 micron.

L10 ANSWER 3 OF 10 USPATFULL on STN

ACCESSION NUMBER: 97:80936 USPATFULL

TITLE: Methods for the preparation of immunostimulating agents for in vivo delivery

INVENTOR(S): Grinstaff, Mark W., Pasadena, CA, United States
Soon-Shiong, Patrick, Los Angeles, CA, United States
Wong, Michael, Champagne, IL, United States
Sandford, Paul A., Los Angeles, CA, United States
Suslick, Kenneth S., Champagne, IL, United States
Desai, Neil P., Los Angeles, CA, United States

PATENT ASSIGNEE(S): Vivorx Pharmaceuticals, Inc., Santa Monica, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5665383		19970909	<--
APPLICATION INFO.:	US 1995-488804		19950607 (8)	

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-200235, filed on 22 Feb 1994, now patented, Pat. No. US 5498421 which is a continuation-in-part of Ser. No. US 1993-23698, filed on 22 Feb 1993, now patented, Pat. No. US 5439686 And a continuation-in-part of Ser. No. US 1993-35150, filed on 26 Mar 1993, now patented, Pat. No. US 5362478

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Benston, Jr., William E.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich, Reiter, Stephen E.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 3278
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . namely the spleen, lungs and liver. The particulate matter contained in normal whole blood comprises red blood cells (typically 8 microns in diameter), white blood cells (typically 6-8 microns in diameter), and platelets (typically 1-3 microns in diameter). The microcirculation in most organs and tissues allows the free passage of these blood cells. When microthrombii (blood clots) of size greater than 10-15 microns are present in circulation, a risk of infarction or blockage of the capillaries results, leading to ischemia or oxygen deprivation and possible tissue death. Injection into the circulation of particles greater than 10-15 microns in diameter, therefore, must be avoided. A suspension of particles less than 7-8 microns, is however, relatively safe and has been used for the delivery of

pharmacologically active agents in the form of liposomes. . .
DETD . . . mean diameter of about 3 microns is typically observed). The size range of particles obtained by this technique is between 0. 1 micron to 20 microns. A preferred size range is 0.5 to 10 microns and the most preferred range is 1 to. . .
DETD . . . that the "shell thickness" of the polymeric coat is approximately 25 nanometers for a coated particle having a diameter of 1 micron (1000 nanometers). In contrast, microspheres of the prior art do not have protein shells, but rather, have protein dispersed throughout. . .
DETD . . . a millimeter). A cross-sectional diameter of less than 5 microns is more preferred, while a cross-sectional diameter of less than 1 micron is presently the most preferred for the intravenous route of administration.
DETD . . . to a size less than about 10 microns, preferably less than about 5 microns and most preferably less than about 1 micron, which allows intravenous delivery in the form of a suspension without the risk of blockage in the microcirculation of organs. . .
DETD . . . one hour, the majority of the polymeric shells appeared to be intact (i.e., appearing as brightly fluorescing particles of about 1 micron diameter), and located in the lungs and liver. At 24 hours, the dye was observed in the liver, lungs, spleen,. . .
DETD . . . contains approximately 3+10.sup.8 IHC shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.
DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.
DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.
DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.
DETD . . . that contains approximately 1+10.sup.9 shells per mL with an average shell diameter of 2 microns with a standard deviation of 1 micron. This synthetic procedure is seen to yield high concentrations of micron-sized biomaterial with narrow size distributions.
DETD . . . than 5 microns. The preferred particle size for intravenous delivery is less than 5 microns and most preferably less than 1 micron.

L10 ANSWER 4 OF 10 USPATFULL on STN
ACCESSION NUMBER: 97:80935 USPATFULL
TITLE: Methods for the preparation of pharmaceutically active agents for in vivo delivery
INVENTOR(S): Grinstaff, Mark W., Pasadena, CA, United States
Soon-Shiong, Patrick, Los Angeles, CA, United States
Wong, Michael, Champaign, IL, United States
Sandford, Paul A., Los Angeles, CA, United States
Suslick, Kenneth S., Champaign, IL, United States
Desai, Neil P., Los Angeles, CA, United States

PATENT ASSIGNEE(S): Vivorx Pharmaceuticals, Inc., Santa Monica, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5665382		19970909	<--
APPLICATION INFO.:	US 1995-485448		19950607	(8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-200235, filed on 22 Feb 1994, now patented, Pat. No. US 5498421 which is a continuation-in-part of Ser. No. US 1993-23698, filed on 22 Feb 1993, now patented, Pat. No. US 5439686 And a continuation-in-part of Ser. No. US 1993-35150, filed on 26 Mar 1993, now patented, Pat. No. US 5362478
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Benston, Jr., William E.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich, Reiter, Stephen E.
NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 3304
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . namely the spleen, lungs and liver. The particulate matter contained in normal whole blood comprises red blood cells (typically 8 microns in diameter), white blood cells (typically 6-8 microns in diameter), and platelets (typically 1-3 microns in diameter). The microcirculation in most organs and tissues allows the free passage of these blood cells. When microthrombii (blood clots) of size greater than 10-15 microns are present in circulation, a risk of infarction or blockage of the capillaries results, leading to ischemia or oxygen deprivation and possible tissue death. Injection into the circulation of particles greater than 10-15 microns in diameter, therefore, must be avoided. A suspension of particles less than 7-8 microns, is however, relatively safe and has been used for the delivery of pharmacologically active agents in the form of liposomes. . .

DETD . . . mean diameter of about 3 microns is typically observed). The size range of particles obtained by this technique is between 0. 1 micron to 20 microns. A preferred size range is 0.5 to 10 microns and the most preferred range is 1 to. . .

DETD . . . that the "shell thickness" of the polymeric coat is approximately 25 nanometers for a coated particle having a diameter of 1 micron (1000 nanometers). In contrast, microspheres of the prior art do not have protein shells, but rather, have protein dispersed throughout. . .

DETD . . . a millimeter). A cross-sectional diameter of less than 5 microns is more preferred, while a cross-sectional diameter of less than 1 micron is presently the most preferred for the intravenous route of administration.

DETD . . . to a size less than about 10 microns, preferably less than about 5 microns and most preferably less than about 1 micron, which allows intravenous delivery in the form of a suspension without the risk of blockage in the microcirculation of organs. . .

DETD . . . one hour, the majority of the polymeric shells appeared to be intact (i.e., appearing as brightly fluorescing particles of about 1 micron diameter), and located in the lungs and liver. At 24 hours, the dye was observed in the liver, lungs, spleen,.

. .
DETD . . . contains approximately 3+10.sup.8 IHC shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.
DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.
DETD . . . contains roughly 10.sup.8 shells per mI with an 5 average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.
DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.
DETD . . . that contains approximately 1+10.sup.9 shells per mL with an average shell diameter of 2 microns with a standard deviation of 1 micron. This synthetic procedure is seen to yield high concentrations of micron-sized biomaterial with narrow size distributions.
DETD . . . than 5 microns. The preferred particle size for intravenous delivery is less than 5 microns and most preferably less than 1 micron.

L10 ANSWER 5 OF 10 USPATFULL on STN
ACCESSION NUMBER: 97:63766 USPATFULL
TITLE: Methods for in vivo delivery of nutriceuticals and compositions useful therefor
INVENTOR(S): Grinstaff, Mark W., Pasadena, CA, United States
Soon-Shiong, Patrick, Los Angeles, CA, United States
Wong, Michael, Champagne, IL, United States
Sandford, Paul A., Los Angeles, CA, United States
Suslick, Kenneth S., Champagne, IL, United States
Desai, Neil P., Los Angeles, CA, United States
PATENT ASSIGNEE(S): Vivorx Pharmaceuticals, Inc., Santa Monica, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5650156		19970722	<--
APPLICATION INFO.:	US 1995-482272		19950607	(8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-200235, filed on 22 Feb 1994, now patented, Pat. No. US 5498421 which is a continuation-in-part of Ser. No. US 1993-23698, filed on 22 Feb 1993, now patented, Pat. No. US 5439686 And Ser. No. US 1993-35150, filed on 26 Mar 1993, now patented, Pat. No. US 5362478
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Benston, Jr., William E.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich, Reiter, Stephen E.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 3310
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . namely the spleen, lungs and liver. The particulate matter contained in normal whole blood comprises red blood cells (typically 8 microns in diameter), white blood cells (typically 6-8 microns in diameter), and platelets (typically 1-3 microns in diameter). The microcirculation in most organs and tissues allows the free passage of these blood cells. When microthrombii (blood clots) of size greater than 10-15 microns are present in circulation, a risk of infarction or blockage of the capillaries results, leading to ischemia or oxygen deprivation and possible tissue death. Injection into the circulation of particles greater than 10-15 microns in diameter, therefore, must be avoided. A suspension of particles less than 7-8 microns, is however, relatively safe and has been used for the delivery of pharmacologically active agents in the form of liposomes. . .

DETD . . . mean diameter of about 3 microns is typically observed). The size range of particles obtained by this technique is between 0. 1 micron to 20 microns. A preferred size range is 0.5 to 10 microns and the most preferred range is 1 to. . .

DETD . . . that the "shell thickness" of the polymeric coat is approximately 25 nanometers for a coated particle having a diameter of 1 micron (1000 nanometers). In contrast, microspheres of the prior art do not have protein shells, but rather, have protein dispersed throughout. . .

DETD . . . a millimeter). A cross-sectional diameter of less than 5 microns is more preferred, while a cross-sectional diameter of less than 1 micron is presently the most preferred for the intravenous route of administration.

DETD . . . to a size less than about 10 microns, preferably less than about 5 microns and most preferably less than about 1 micron, which allows intravenous delivery in the form of a suspension without the risk of blockage in the microcirculation of organs. . .

DETD . . . one hour, the majority of the polymeric shells appeared to be intact (i.e., appearing as brightly fluorescing particles of about 1 micron diameter), and located in the lungs and liver. At 24 hours, the dye was observed in the liver, lungs, spleen,. . .

DETD . . . contains approximately 3+10.sup.8 IHC shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains approximately 1+10.sup.9 shells per mL with an average shell diameter of 2 microns with a standard deviation of 1 micron. This synthetic procedure is seen to yield high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . than 5 microns. The preferred particle size for intravenous delivery is less than 5 microns and most preferably less than 1 micron.

L10 ANSWER 6 OF 10 USPATFULL on STN
ACCESSION NUMBER: 97:51729 USPATFULL
TITLE: Methods for the preparation of nucleic acids for in vivo delivery
INVENTOR(S): Grinstaff, Mark W., Pasadena, CA, United States
Soon-Shiong, Patrick, Los Angeles, CA, United States
Wong, Michael, Champaign, IL, United States
Sandford, Paul A., Los Angeles, CA, United States
Suslick, Kenneth S., Champaign, IL, United States
Desai, Neil P., Los Angeles, CA, United States
PATENT ASSIGNEE(S): Vivorx Pharmaceuticals, Inc., Santa Monica, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5639473		19970617	<--
APPLICATION INFO.:	US 1995-483295		19950607	(8)

DISCLAIMER DATE: 20150607
RELATED APPLN. INFO.: Division of Ser. No. US 1994-200235, filed on 22 Feb 1994, now patented, Pat. No. US 5498421 which is a continuation-in-part of Ser. No. US 1993-23698, filed on 22 Feb 1993, now patented, Pat. No. US 5439686 And a continuation-in-part of Ser. No. US 1993-35150, filed on 26 Mar 1993, now patented, Pat. No. US 5362478
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Benston, Jr., William E.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich, Reiter, Stephen E.
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 3232
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . namely the spleen, lungs and liver. The particulate matter contained in normal whole blood comprises red blood cells (typically 8 microns in diameter), white blood cells (typically 6-8 microns in diameter), and platelets (typically 1-3 microns in diameter). The microcirculation in most organs and tissues allows the free passage of these blood cells. When microthrombii (blood clots) of size greater than 10-15 microns are present in circulation, a risk of infarction or blockage of the capillaries results, leading to ischemia or oxygen deprivation and possible tissue death. Injection into the circulation of particles greater than 10-15 microns in diameter, therefore, must be avoided. A suspension of particles less than 7-8 microns, is however, relatively safe and has been used for the delivery of pharmacologically active agents in the form of liposomes. . .

DETD . . . mean diameter of about 3 microns is typically observed). The size range of particles obtained by this technique is between 0. 1 micron to 20 microns. A preferred size range is 0.5 to 10 microns and the most preferred range is 1 to. . .

DETD . . . that the "shell thickness" of the polymeric coat is approximately 25 nanometers for a coated particle having a diameter of 1 micron (1000 nanometers). In contrast, microspheres

of the prior art do not have protein shells, but rather, have protein dispersed throughout. . .

DETD . . . a millimeter). A cross-sectional diameter of less than 5 microns is more preferred, while a cross-sectional diameter of less than 1 micron is presently the most preferred for the intravenous route of administration.

DETD . . . to a size less than about 10 microns, preferably less than about 5 microns and most preferably less than about 1 micron, which allows intravenous delivery in the form of a suspension without the risk of blockage in the microcirculation of organs. . .

DETD . . . one hour, the majority of the polymeric shells appeared to be intact (i.e., appearing as brightly fluorescing particles of about 1 micron diameter), and located in the lungs and liver. At 24 hours, the dye was observed in the liver, lungs, spleen,. . .

DETD . . . contains approximately 3+10.sup.8 IHC shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 0.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains approximately 1+10.sup.9 shells per mL with an average shell diameter of 2 microns with a standard deviation of 1 micron. This synthetic procedure is seen to yield high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . than 5 microns. The preferred particle size for intravenous delivery is less than 5 microns and most preferably less than 1 micron.

L10 ANSWER 7 OF 10 USPATFULL on STN

ACCESSION NUMBER: 97:47123 USPATFULL

TITLE: Methods for the preparation of blood substitutes for in vivo delivery

INVENTOR(S): Grinstaff, Mark W., Pasadena, CA, United States
Soon-Shiong, Patrick, Los Angeles, CA, United States
Wong, Michael, Champaign, IL, United States
Sandford, Paul A., Los Angeles, CA, United States
Suslick, Kenneth S., Champaign, IL, United States
Desai, Neil P., Los Angeles, CA, United States

PATENT ASSIGNEE(S): Vivorx Pharmaceuticals, Inc., Santa Monica, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5635207		19970603	<--
APPLICATION INFO.:	US 1995-480621		19950607 (8)	
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-200235, filed on 22 Feb			

1994, now patented, Pat. No. US 5498421 which is a continuation-in-part of Ser. No. US 1993-23698, filed on 22 Feb 1993, now patented, Pat. No. US 5439686 And a continuation-in-part of Ser. No. US 1993-35150, filed on 26 Mar 1993, now patented, Pat. No. US 5362478

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Benston, Jr., William E.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich, Reiter, Stephen E.
NUMBER OF CLAIMS: 44
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 3309
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . namely the spleen, lungs and liver. The particulate matter contained in normal whole blood comprises red blood cells (typically 8 microns in diameter), white blood cells (typically 6-8 microns in diameter), and platelets (typically 1-3 microns in diameter). The microcirculation in most organs and tissues allows the free passage of these blood cells. When microthrombii (blood clots) of size greater than 10-15 microns are present in circulation, a risk of infarction or blockage of the capillaries results, leading to ischemia or oxygen deprivation and possible tissue death. Injection into the circulation of particles greater than 10-15 microns in diameter, therefore, must be avoided. A suspension of particles less than 7-8 microns, is however, relatively safe and has been used for the delivery of pharmacologically active agents in the form of liposomes. . .

DETD . . . mean diameter of about 3 microns is typically observed). The size range of particles obtained by this technique is between 0. 1 micron to 20 microns. A preferred size range is 0.5 to 10 microns and the most preferred range is 1 to. . .

DETD . . . that the "shell thickness" of the polymeric coat is approximately 25 nanometers for a coated particle having a diameter of 1 micron (1000 nanometers). In contrast, microspheres of the prior art do not have protein shells, but rather, have protein dispersed throughout. . .

DETD . . . a millimeter). A cross-sectional diameter of less than 5 microns is more preferred, while a cross-sectional diameter of less than 1 micron is presently the most preferred for the intravenous route of administration.

DETD . . . to a size less than about 10 microns, preferably less than about 5 microns and most preferably less than about 1 micron, which allows intravenous delivery in the form of a suspension without the risk of blockage in the microcirculation of organs. . .

DETD . . . one hour, the majority of the polymeric shells appeared to be intact (i.e., appearing as brightly fluorescing particles of about 1 micron diameter), and located in the lungs and liver. At 24 hours, the dye was observed in the liver, lungs, spleen,. . .

DETD . . . contains approximately 3+10.sup.8 IHC shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1

micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains approximately 1+10.sup.9 shells per mL with an average shell diameter of 2 microns with a standard deviation of 1 micron. This synthetic procedure is seen to yield high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . than 5 microns. The preferred particle size for intravenous delivery is less than 5 microns and most preferably less than 1 micron.

L10 ANSWER 8 OF 10 USPATFULL on STN

ACCESSION NUMBER:	96:89649 USPATFULL
TITLE:	Methods for in vivo delivery of substantially water insoluble pharmacologically active agents and compositions useful therefor
INVENTOR(S):	Soon-Shiong, Patrick, Los Angeles, CA, United States Desai, Neil P., Los Angeles, CA, United States Grinstaff, Mark W., Pasadena, CA, United States Sandford, Paul A., Los Angeles, CA, United States Suslick, Kenneth S., Champaign, IL, United States
PATENT ASSIGNEE(S):	VivoRx Pharmaceuticals, Inc., Santa Monica, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5560933		19961001	<--
APPLICATION INFO.:	US 1995-412726		19950329 (8)	
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-23698, filed on 22 Feb 1993, now patented, Pat. No. US 5439686			
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Page, Thurman K.			
ASSISTANT EXAMINER:	Benston, Jr., William E.			
LEGAL REPRESENTATIVE:	Pretty, Schroeder, Brueggemann & Clark, Reiter, Stephen E.			
NUMBER OF CLAIMS:	28			
EXEMPLARY CLAIM:	1			
LINE COUNT:	1103			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . namely the spleen, lungs and liver. The particulate matter contained in normal whole blood comprises red blood cells (typically 8 microns in diameter), white blood cells (typically 6-8 microns in diameter), and platelets (typically 1-3 microns in diameter). The microcirculation in most organs and tissues allows the free passage of these blood cells. When microthrombii (blood clots) of size greater than 10-15 microns are present in circulation, a risk of infarction or blockage of the capillaries results, leading to ischemia or oxygen deprivation and possible tissue death. Injection into the circulation of particles greater than 10-15 microns in diameter, therefore, must be

avoided. A suspension of particles less than 7-8 microns, is however, relatively safe and has been used for the delivery of pharmacologically active agents in the form of liposomes. . .

DRWD . . . that the "shell thickness" of the polymeric coat is approximately 25 nanometers for a coated particle having a diameter of 1 micron (1000 nanometers). In contrast, microspheres of the prior art do not have protein shells, but rather, have protein dispersed throughout. . .

DRWD . . . 10 microns. A cross-sectional diameter of less than 5 microns is more preferred, while a cross-sectional diameter of less than 1 micron is presently the most preferred for the intravenous route of administration.

DRWD . . . of taxol ground to a size less than 10 microns, preferably less than 5 microns and most preferably less than 1 micron , which allows intravenous delivery in the form of a suspension without the risk of blockage in the microcirculation of organs. . .

DETD . . . than 5 microns. The preferred particle size for intravenous delivery is less than 5 microns and most preferably less than 1 micron.

DETD . . . most of the polymeric shells were intact and found in the lungs and liver as brightly fluorescing particles of about 1 micron diameter. At 24 hours, polymeric shells were found in the liver, lungs, spleen, and bone marrow. A general staining of. . .

L10 ANSWER 9 OF 10 USPATFULL on STN

ACCESSION NUMBER:	96:20903 USPATFULL
TITLE:	Composition useful for in vivo delivery of biologics and methods employing same
INVENTOR(S):	Grinstaff, Mark W., Pasadena, CA, United States Soon-Shiong, Patrick, Los Angeles, CA, United States Wong, Michael, Champaign, IL, United States Sandford, Paul A., Los Angeles, CA, United States Suslick, Kenneth S., Champaign, IL, United States Desai, Neil P., Los Angeles, CA, United States
PATENT ASSIGNEE(S):	Vivorx Pharmaceuticals, Inc., Santa Monica, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5498421		19960312	<--
APPLICATION INFO.:	US 1994-200235		19940222	(8)

RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-23698, filed on 22 Feb 1993, now patented, Pat. No. US 5439686 And a continuation-in-part of Ser. No. US 1993-35150, filed on 26 Mar 1993, now patented, Pat. No. US 5362478
DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Page, Thurman K.
ASSISTANT EXAMINER:	Benston, Jr., William E.
LEGAL REPRESENTATIVE:	Reiter, Stephen E.Pretty, Schroeder, Brueggemann & Clark
NUMBER OF CLAIMS:	30
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT:	3321

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . namely the spleen, lungs and liver. The particulate matter contained in normal whole blood comprises red blood cells (typically 8 microns in diameter), white blood cells (typically 6-8

microns in diameter), and platelets (typically 1-3 microns in diameter). The microcirculation in most organs and tissues allows the free passage of these blood cells. When microthrombii (blood clots) of size greater than 10-15 microns are present in circulation, a risk of infarction or blockage of the capillaries results, leading to ischemia or oxygen deprivation and possible tissue death. Injection into the circulation of particles greater than 10-15 microns in diameter, therefore, must be avoided. A suspension of particles less than 7-8 microns, is however, relatively safe and has been used for the delivery of pharmacologically active agents in the form of liposomes. . .

DETD . . . mean diameter of about 3 microns is typically observed). The size range of particles obtained by this technique is between 0. 1 micron to 20 microns. A preferred size range is 0.5 to 10 microns and the most preferred range is 1 to. . .

DETD . . . that the "shell thickness" of the polymeric coat is approximately 25 nanometers for a coated particle having a diameter of 1 micron (1000 nanometers). In contrast, microspheres of the prior art do not have protein shells, but rather, have protein dispersed throughout. . .

DETD . . . a millimeter). A cross-sectional diameter of less than 5 microns is more preferred, while a cross-sectional diameter of less than 1 micron is presently the most preferred for the intravenous route of administration.

DETD . . . to a size less than about 10 microns, preferably less than about 5 microns and most preferably less than about 1 micron, which allows intravenous delivery in the form of a suspension without the risk of blockage in the microcirculation of organs. . .

DETD . . . one hour, the majority of the polymeric shells appeared to be intact (i.e., appearing as brightly fluorescing particles of about 1 micron diameter), and located in the lungs and liver. At 24 hours, the dye was observed in the liver, lungs, spleen,. . .

DETD . . . contains approximately 3+10.sup.8 IHC shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains roughly 10.sup.8 shells per ml with an average shell diameter of 3 microns with a standard deviation of 1 micron. This synthetic procedure yields high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . that contains approximately 1+10.sup.9 shells per mL with an average shell diameter of 2 microns with a standard deviation of 1 micron. This synthetic procedure is seen to yield high concentrations of micron-sized biomaterial with narrow size distributions.

DETD . . . than 5 microns. The preferred particle size for intravenous delivery is less than 5 microns and most preferably less than 1 micron.

L10 ANSWER 10 OF 10 USPATFULL on STN
ACCESSION NUMBER: 95:71142 USPATFULL
TITLE: Methods for in vivo delivery of substantially water insoluble pharmacologically active agents and compositions useful therefor
INVENTOR(S): Desai, Neil P., Los Angeles, CA, United States
Soon-Shiong, Patrick, Los Angeles, CA, United States
Sandford, Paul A., Los Angeles, CA, United States
Grinstaff, Mark W., Pasadena, CA, United States
Suslick, Kenneth S., Champaign, IL, United States
PATENT ASSIGNEE(S): VivoRx Pharmaceuticals, Inc., Santa Monica, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5439686		19950808	<--
APPLICATION INFO.:	US 1993-23698		19930222	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Benston, Jr. William E.
LEGAL REPRESENTATIVE: Reiter, Stephen E.Pretty, Schroeder, Brueggemann & Clark
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
LINE COUNT: 1108
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . namely the spleen, lungs and liver. The particulate matter contained in normal whole blood comprises red blood cells (typically 8 microns in diameter), white blood cells (typically 6-8 microns in diameter), and platelets (typically 1-3 microns in diameter). The microcirculation in most organs and tissues allows the free passage of these blood cells. When microthrombii (blood clots) of size greater than 10-15 microns are present in circulation, a risk of infarction or blockage of the capillaries results, leading to ischemia or oxygen deprivation and possible tissue death. Injection into the circulation of particles greater than 10-15 microns in diameter, therefore, must be avoided. A suspension of particles less than 7-8 microns, is however, relatively safe and has been used for the delivery of pharmacologically active agents in the form of liposomes. . .

DETD . . . that the "shell thickness" of the polymeric coat is approximately 25 nanometers for a coated particle having a diameter of 1 micron (1000 nanometers). In contrast, microspheres of the prior art do not have protein shells, but rather, have protein dispersed throughout. . .

DETD . . . 10 microns. A cross-sectional diameter of less than 5 microns is more preferred, while a cross-sectional diameter of less than 1 micron is presently the most preferred for the intravenous route of administration.

DETD . . . of taxol ground to a size less than 10 microns, preferably less than 5 microns and most preferably less than 1 micron , which allows intravenous delivery in the form of a suspension without the risk of blockage in the microcirculation of organs. . .

DETD . . . than 5 microns. The preferred particle size for intravenous delivery is less than 5 microns and most preferably less than 1 micron.

DETD . . . most of the polymeric shells were intact and found in the lungs and liver as brightly fluorescing particles of about 1

micron diameter. At 24 hours, polymeric shells were found in the liver, lungs, spleen, and bone marrow. A general staining of. . .

```
=> s bisphosphonate or disphosphonate or clodronate or etidronate or fludronate or
tiludronate or pamidronate or alendronate or risendronate or neridronate or olpadronate or
ibandronate or zoledronate
  21 FILES SEARCHED...
L11      77999 BISPHOSPHONATE OR DISPHOSPHONATE OR CLODRONATE OR ETIDRONATE OR
               FLUDRONATE OR TILUDRONATE OR PAMIDRONATE OR ALENDRONATE OR RISEN
               DRONATE OR NERIDRONATE OR OLPADRONATE OR IBANDRONATE OR ZOLEDRON
               ATE

=> s myocardial infarction
L12     630538 MYOCARDIAL INFARCTION

=> s infarct?
L13     947994 INFARCT?

=> s l11 and l13
L14       2034 L11 AND L13

=> s micron?
L15     856325 MICRON?

=> s l14 and l15
L16        487 L14 AND L15

=> s l12 and l16
L17        375 L12 AND L16

=> s l17 and pd<2004
   5 FILES SEARCHED...
  12 FILES SEARCHED...
  15 FILES SEARCHED...
'2004' NOT A VALID FIELD CODE
'2004' NOT A VALID FIELD CODE
  19 FILES SEARCHED...
L18         55 L17 AND PD<2004

=> d his

     (FILE 'HOME' ENTERED AT 16:09:50 ON 27 JAN 2009)

     FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, BIOSIS, CAPLUS, DISSABS,
     DRUGMONOG2, EMBAL, EMBASE, IFIPAT, IMSDRUGNEWS, IMSPRODUCT, IPA, LIFESCI,
     MEDLINE, NAPRALERT, NLDB, PHIN, SCISEARCH, TOXCENTER, USPATFULL,
     USPATOLD, USPAT2' ENTERED AT 16:10:14 ON 27 JAN 2009
L1        32138 S INHIBIT (S)(PHAGOCYTIC CELL) OR (WHITE CELL)
L2       630538 S MYOCARDIAL INFARCTION
L3         1081 S L1 AND L2
L4          122 S MICRON AND MICRON (S) INFARCTION
L5        91222 S 1 MICRON
L6          122 S MICRON (S) INFARCTION
L7           28 S L5 AND L6
L8            0 S L3 AND L7
L9           28 DUP REM L7 (0 DUPLICATES REMOVED)
L10          10 S L9 AND PD<2004
L11       77999 S BISPHOSPHONATE OR DISPHOSPHONATE OR CLODRONATE OR ETIDRONATE
L12      630538 S MYOCARDIAL INFARCTION
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L13      947994 S INFARCT?
L14        2034 S L11 AND L13
L15      856325 S MICRON?
L16         487 S L14 AND L15
L17         375 S L12 AND L16
L18          55 S L17 AND PD<2004

=> s l18 and l2
L19          55 L18 AND L2

=> s l19 and l1
L20           0 L19 AND L1

=> s liposome
L21      334274 LIPOSOME

=> s l19 and l21
L22          20 L19 AND L21

=> d l22 1-20 ibib, kwic

L22  ANSWER 1 OF 20  USPATFULL on STN
ACCESSION NUMBER:       2003:318254  USPATFULL
TITLE:                  Antibodies that immunospecifically bind to BLyS
INVENTOR(S):            Ruben, Steven M., Brookeville, MD, UNITED STATES
                        Barash, Steven C., Rockville, MD, UNITED STATES
                        Choi, Gil H., Rockville, MD, UNITED STATES
                        Vaughan, Tristan, Cambridge, UNITED KINGDOM
                        Hilbert, David, Bethesda, MD, UNITED STATES

                             NUMBER       KIND    DATE
                        ---------------- ------ --------
PATENT INFORMATION:     US 20030223996     A1   20031204            <--
                        US 7220840         B2   20070522
APPLICATION INFO.:      US 2002-293418     A1   20021114  (10)
RELATED APPLN. INFO.:   Continuation-in-part of Ser. No. US 2001-880748, filed
                        on 15 Jun 2001, PENDING

                               NUMBER         DATE
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PRIORITY INFORMATION:   US 2001-331469P    20011116 (60)
                        US 2001-340817P    20011219 (60)
                        US 2000-212210P    20000616 (60)
                        US 2000-240816P    20001017 (60)
                        US 2001-276248P    20010316 (60)
                        US 2001-277379P    20010321 (60)
                        US 2001-293499P    20010525 (60)
DOCUMENT TYPE:          Utility
FILE SEGMENT:           APPLICATION
LEGAL REPRESENTATIVE:   HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE,
                        ROCKVILLE, MD, 20850
NUMBER OF CLAIMS:       87
EXEMPLARY CLAIM:        1
NUMBER OF DRAWINGS:     16 Drawing Page(s)
LINE COUNT:             18910
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD   . . .  invention may be the result of hydrophobic, hydrophilic, ionic
       and/or covalent associations and/or may be indirectly linked, by for
       example, liposome formation. Thus, in one embodiment, BLyS
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multimers, such as, for example, homodimers or homotrimers, are formed when polypeptides of the. . .

DETD . . . (TAXOL", Bristol-Myers Squibb Oncology, Princeton, N.J.) doxetaxel (TAXOTERE", Rhone-Poulenc Rorer, Antony, France), gemcitabine, ifosfamide, vinorelbine, navelbine, novantrone, teniposide, aminopterin, xeloda, ibandronate, CPT-I 1, topoisomerase inhibitor RFS 2000, difluoromethylornithine (DMFO), retinoic acid, esperamicins, capecitabine, and pharmaceutically acceptable salts, acids or derivatives of. . .

DETD . . . prognose thrombotic related events including, but not limited to, stroke (and recurrent stroke), heart attack, deep vein thrombosis, pulmonary embolism, myocardial infarction, coronary artery disease (e.g., antibody-mediated coronary artery disease), thrombosis, graft reocclusion following cardiovascular surgery (e.g., coronary arterial bypass grafts, recurrent. . .

DETD . . . Amyotrophic lateral sclerosis, Retinitis pigmentosa, Cerebellar degeneration), myelodysplastic syndromes (such as aplastic anemia), ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), toxin-induced liver disease (such as that caused by alcohol), septic shock, cachexia and anorexia. In another. . .

DETD . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

DETD . . . are known and can be used to administer antibody or fragment or variant thereof of the invention, e.g., encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the antibody or antibody fragment, receptor-mediated endocytosis (see, e.g., Wu and Wu, J.. . .

DETD [0568] In another embodiment, the composition can be delivered in a vesicle, in particular a liposome (see Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 353-365 (1989); Lopez-Berestein, ibid.,. . .

DETD . . . FBS containing 100 U/ml penicillin, 100 μg/ml streptomycin, 4 mM glutamine, 5+10.sup.-5M β-mercaptoethanol). The cells were passed through a 100 micron nylon filter to remove cell clumps. The cell suspension was then ficolled at 400+g for 25 minutes at room temperature. . .

L22 ANSWER 2 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2003:299930 USPATFULL
TITLE:	Dihydroxy open-acid and salts of HMG-Co-A reductase inhibitors
INVENTOR(S):	Tillyer, Richard D., Cranford, NJ, UNITED STATES Reider, Paul J., Westfield, NJ, UNITED STATES Grabowski, Edward J. J., Westfield, NJ, UNITED STATES Xu, Feng, Staten Island, NY, UNITED STATES Vega, Jose M., Trappe, PA, UNITED STATES Asgharnejad, Mandana, Ambler, PA, UNITED STATES
PATENT ASSIGNEE(S):	Merck & Co., Inc. (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030211151	A1	20031113	<--
APPLICATION INFO.:	US 2003-425154	A1	20030429 (10)	
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-558800, filed on 26 Apr			

2000, GRANTED, Pat. No. US 6569461 Continuation-in-part of Ser. No. US 2000-516259, filed on 29 Feb 2000, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-123227P	19990308 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MERCK AND CO INC, P O BOX 2000, RAHWAY, NJ, 070650907
NUMBER OF CLAIMS: 41
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 1823
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . a range from, but not limited to, 5% to 15% tablet weight gain, which corresponds to about 50 to 150 micron coating thickness, and particularly about 10% tablet weight gain.

DETD . . . restenosis following revascularization procedures, coronary heart disease (also known as coronary artery disease or ischemic heart disease), cerebrovascular disease including multi-infarct dementia, and peripheral vessel disease including erectile dysfunction are all clinical manifestations of atherosclerosis and are therefore encompassed by the. . .

DETD . . . coronary heart disease event, a cerebrovascular event, and/or intermittent claudication. Coronary heart disease events are intended to include CHD death, myocardial infarction (i.e., a heart attack), and coronary revascularization procedures. Cerebrovascular events are intended to include ischemic or hemorrhagic stroke (also known. . .

DETD [0072] The active drug can also be administered in the form of liposome delivery systems, such as small unilamellar vesicles, large unilamellar vesicles and multilamellar vesicles. Liposomes can be formed from a variety of phospholipids, such as cholesterol, stearylamine or phosphatidylcholines.

DETD . . . as thiazolidinediones as well as those PPARγ agonists outside the thiazolidinedione structural class; PPARα agonists such as clofibrate, fenofibrate including micronized fenofibrate, and gemfibrozil; PPAR dual α/γ agonists; vitamin B.sub.6 (also known as pyridoxine) and the pharmaceutically acceptable salts thereof such. . . nifedipine and diltiazam; endothelian antagonists; agents that enhance ABC1 gene expression; FXR and LXR ligands including both inhibitors and agonists; bisphosphonate compounds such as alendronate sodium; and cyclooxygenase-2 inhibitors such as rofecoxib and celecoxib. Additionally, the dihydroxy open acid statins of this invention, for example. . .

DETD . . . the starting weight of the dosage form) was targeted for this product, corresponding to an approximate coating thickness of 100 microns.

DETD . . . monitor the coating endpoint. A weight gain of approximately 4-6 mg enteric polymer per cm.sup.2 tablet surface area (approximately 40-80 micron coating thickness, and approximately 6-10% weight gain based on the starting weight of the dosage form) was targeted as the. . .

IT Heart, disease
(infarction; controlled-release pharmaceutical prepns. containing dihydroxy open-acid and salts of HMG-Co-A reductase inhibitors)

L22 ANSWER 3 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2003:253536 USPATFULL
TITLE:	Nucleic acids encoding human tumor necrosis factor TR20
INVENTOR(S):	Ruben, Steven M., Olney, MD, United States Baker, Kevin P., Darnestown, MD, United States Ni, Jian, Germantown, MD, United States
PATENT ASSIGNEE(S):	Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6623941	B1	20030923	<--
APPLICATION INFO.:	US 2001-848295		20010504 (9)	

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-202193P	20000505 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Kunz, Gary
ASSISTANT EXAMINER:	O'Hara, Eileen B.
LEGAL REPRESENTATIVE:	Human Genome Sciences, Inc.
NUMBER OF CLAIMS:	76
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT:	10960

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the polypeptides of the invention can be placed under the control of a strong constitutive. . .

DETD . . . invention may be the result of hydrophobic, hydrophilic, ionic and/or covalent associations and/or may be indirectly linked, by for example, liposome formation. Thus, in one embodiment, multimers of the invention, such as, for example, homodimers or homotrimers, are formed when proteins. . .

DETD . . . which is herein incorporated by reference in its entirety). Additionally, techniques known in the art may be applied to generate liposomes containing the protein components desired to be contained in the multimer of the invention (see, e.g., U.S. Pat. No. 5,478,925,. . .

DETD . . . recombinant polypeptides of the invention which contain a transmembrane domain and which can be incorporated by membrane reconstitution techniques into liposomes (see, e.g., U.S. Pat. No. 5,478,925, which is herein incorporated by reference in its entirety).

DETD . . . (TAXOL", Bristol-Myers Squibb Oncology, Princeton, N.J.) doxetaxel (TAXOTERE", Rhone-Poulenc Rorer, Antony, France), gemcitabine, ifosfamide, vinorelbine, navelbine, novantrone, teniposide, aminopterin, xeloda, ibandronate, CPT-I 1, topoisomerase inhibitor RFS 2000, difluoromethylornithine (DMFO), retinoic acid, esperamicins, capecitabine, and pharmaceutically acceptable salts, acids or derivatives of. . .

DETD . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

DETD Various delivery systems are known and can be used to administer a compound of the invention, e.g., encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the compound, receptor-mediated endocytosis (see, e.g., Wu and Wu, J. Biol. Chem. 262:4429-4432. . .

DETD In another embodiment, the compound or composition can be delivered in a vesicle, in particular a liposome (see Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, N.Y., pp. 353-365 (1989); Lopez-Berestein, ibid., pp.. . .

DETD . . . diagnose, thrombotic related events including, but not limited to, stroke (and recurrent stroke), heart attack, deep vein thrombosis, pulmonary embolism, myocardial infarction, coronary artery disease (e.g., antibody-mediated coronary artery disease), thrombosis, graft reocclusion following cardiovascular surgery (e.g., coronary arterial bypass grafts, recurrent. . .

DETD . . . and rheumatoid arthritis); myelodysplastic syndromes (such as aplastic anemia), graft v. host disease, ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), liver injury (such as hepatitis related liver injury, ischemia/reperfusion injury, cholestosis (bile duct injury) and liver. . .

DETD . . . arrest, congestive heart failure, congestive cardiomyopathy, paroxysmal dyspnea, cardiac edema, heart hypertrophy, congestive cardiomyopathy, left ventricular hypertrophy, right ventricular hypertrophy, post-infarction heart rupture, ventricular septal rupture, heart valve diseases, myocardial diseases, myocardial ischemia, pericardial effusion, pericarditis (including constrictive and tuberculous), pneumopericardium,. . .

DETD Myocardial ischemias include coronary disease, such as angina pectoris, coronary aneurysm, coronary arteriosclerosis, coronary thrombosis, coronary vasospasm, myocardial infarction and myocardial stunning.

DETD . . . cerebral embolism and thrombosis, carotid artery thrombosis, sinus thrombosis, Wallenberg's syndrome, cerebral hemorrhage, epidural hematoma, subdural hematoma, subaraxhnoid hemorrhage, cerebral infarction, cerebral ischemia (including transient), subclavian steal syndrome, periventricular leukomalacia, vascular headache, cluster headache, migraine, and vertebrobasilar insufficiency.

DETD . . . infection, nephritis, bone disease (e.g., osteoporosis), atherosclerosis, pain, cardiovascular disorders (e.g., neovascularization, hypovascularization or reduced circulation (e.g., ischemic disease (e.g., myocardial infarction, stroke, etc.)), AIDS, allergy, inflammation, neurodegenerative disease (e.g., Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, pigmentary retinitis, cerebellar degeneration, etc.),. . .

DETD . . . solution, and dextrose solution. Non-aqueous vehicles such as fixed oils and ethyl oleate are also useful herein, as well as liposomes.

DETD . . . be used for therapeutic administration must be sterile. Sterility is readily accomplished by filtration through sterile filtration membranes (e.g., 0.2 micron membranes). Therapeutic TR20 polypeptide compositions generally are placed into a container having a sterile access port, for example, an intravenous. . .

DETD Sustained-release compositions also include liposomally entrapped compositions of the invention (see generally, Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, N.Y., pp. 317-327 and 353-365 (1989)). Liposomes

containing TR20 polypeptide may be prepared by methods known per se: DE 3,218,121; Epstein et al., Proc. Natl. Acad. Sci.. . . 88,046; EP 143,949; EP 142,641; Japanese Pat. Appl. 83-118008; U.S. Pat. Nos. 4,485,045 and 4,544,545; and EP 102,324. Ordinarily, the liposomes are of the small (about 200-800 Angstroms) unilamellar type in which the lipid content is greater than about 30 mol.. . .

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the polypeptides of the invention can be placed under the control of a strong constitutive. . .

DETD . . . from any delivery vehicle that acts to assist, promote, or facilitate entry into the cell, including viral sequences, viral particles, liposome formulations, lipofectin or precipitating agents and the like. However, the TR20 polynucleotides may also be delivered in liposome formulations (such as those taught in Felgner P. L., et al. Ann. NY Acad. Sci. 772:126-139 (1995), and Abdallah B.,. . .

DETD . . . methodology. The template DNA, which may be either circular or linear, is either used as naked DNA or complexed with liposomes . The quadriceps muscles of mice are then injected with various amounts of the template DNA.

DETD . . . are administered as naked polynucleotides via electroporation. However, the polynucleotide constructs may also be administered with transfection-facilitating agents, such as liposomes, viral sequences, viral particles, precipitating agents, etc. Such methods of delivery are known in the art.

L22 ANSWER 4 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2003:251712 USPATFULL
TITLE:	Dihydroxy open-acid salt of simvastatin
INVENTOR(S):	Tillyer, Richard D., Cranford, NJ, UNITED STATES Reider, Paul J., Westfield, NJ, UNITED STATES Grabowski, Edward J. J., Westfield, NJ, UNITED STATES Xu, Feng, Staten Island, NY, UNITED STATES Wenslow, Robert M., East Windsor, NJ, UNITED STATES Vega, Jose M., Trappe, PA, UNITED STATES Varsolona, Richard J., Scotch Plains, NJ, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030176501	A1	20030918	<--
APPLICATION INFO.:	US 2002-293153	A1	20021113 (10)	

RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-660956, filed on 13 Sep 2000, ABANDONED
DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	MERCK AND CO INC, P O BOX 2000, RAHWAY, NJ, 070650907
NUMBER OF CLAIMS:	160
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	27 Drawing Page(s)
LINE COUNT:	2712

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . restenosis following revascularization procedures, coronary heart disease (also known as coronary artery disease or ischemic heart disease), cerebrovascular disease including multi-infarct dementia, and peripheral vessel disease including erectile dysfunction are all clinical manifestations of atherosclerosis and are therefore encompassed by the. . .

DETD . . . coronary heart disease event, a cerebrovascular event, and/or intermittent claudication. Coronary heart disease events are intended to include CHD death, myocardial infarction (i.e., a heart attack), and coronary revascularization procedures. Cerebrovascular events are intended to include ischemic or hemorrhagic stroke (also known. . .

DETD [0135] The active drug can also be administered in the form of liposome delivery systems, such as small unilamellar vesicles, large unilamellar vesicles and multilamellar vesicles. Liposomes can be formed from a variety of phospholipids, such as cholesterol, stearylamine or phosphatidylcholines.

DETD . . . as thiazolidinediones as well as those PPARα agonists outside the thiazolidinedione structural class; PPARα agonists such as clofibrate, fenofibrate including micronized fenofibrate, and gemfibrozil; PPAR dual α/γ agonists; vitamin B.sub.6 (also known as pyridoxine) and the pharmaceutically acceptable salts thereof such. . . nifedipine and diltiazam; endothelian antagonists; agents that enhance ABC1 gene expression; FXR and LXR ligands including both inhibitors and agonists; bisphosphonate compounds such as alendronate sodium; and cyclooxygenase-2 inhibitors such as rofecoxib and celecoxib. Additionally, the dihydroxy open acid statins of this invention, for example. . .

CLM What is claimed is:
104. The method of claim 103 wherein the coronary heart disease event is selected from coronary heart disease death, myocardial infarction, and coronary revascularization procedures.

L22 ANSWER 5 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2003:251148 USPATFULL
TITLE:	Protein tyrosine phosphatase polynucleotides, polypeptides, and antibodies
INVENTOR(S):	Shi, Yanggu, Gaithersburg, MD, UNITED STATES Ruben, Steven M., Olney, MD, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030175934	A1	20030918	<--
APPLICATION INFO.:	US 2001-935703	A1	20010824 (9)	

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 2001-US5496, filed on 22 Feb 2001, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-186658P	20000303 (60)
	US 2000-189881P	20000316 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS:	22
EXEMPLARY CLAIM:	1
LINE COUNT:	11501

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . a wide range of biological activities. Schmidt et al. found a murine PTPase expressed by osteoclasts that, upon inhibition by Alendronate (ALN), inhibited in vitro osteoclast formation and bone resorption (Schmidt, A., et al., Proc. Nat. Acad. Sci. USA,

93:3068-73 (1996)).. . .

SUMM . . . invention may be the result of hydrophobic, hydrophilic, ionic and/or covalent associations and/or may be indirectly linked, by for example, liposome formation. Thus, in one embodiment, multimers of the invention, such as, for example, homodimers or homotrimers, are formed when polypeptides. . .

SUMM . . . which is herein incorporated by reference in its entirety). Additionally, techniques known in the art may be applied to generate liposomes containing the polypeptide components desired to be contained in the multimer of the invention (see, e.g., U.S. Pat. No. 5,478,925,. . .

SUMM . . . which contain a transmembrane domain (or hyrophobic or signal peptide) and which can be incorporated by membrane reconstitution techniques into liposomes (see, e.g., U.S. Pat. No. 5,478,925, which is herein incorporated by reference in its entirety).

SUMM . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

SUMM [0284] Various delivery systems are known and can be used to administer a compound of the invention, e.g., encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the compound, receptor-mediated endocytosis (see, e.g., Wu and Wu, J. Biol. Chem. 262:4429-4432. . .

SUMM [0286] In another embodiment, the compound or composition can be delivered in a vesicle, in particular a liposome (see Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 353-365 (1989); Lopez-Berestein, ibid.,. . . .

SUMM . . . from any delivery vehicle that acts to assist, promote or facilitate entry into the cell, including viral sequences, viral particles, liposome formulations, lipofectin or precipitating agents and the like. However, the polynucleotide of the present invention can also be delivered in liposome formulations and lipofectin formulations and the like can be prepared by methods well known to those skilled in the art.. . .

SUMM [0408] The constructs may also be delivered with delivery vehicles such as viral sequences, viral particles, liposome formulations, lipofectin, precipitating agents, etc. Such methods of delivery are known in the art.

SUMM [0409] In certain embodiments, the polynucleotide constructs are complexed in a liposome preparation. Liposomal preparations for use in the instant invention include cationic (positively charged), anionic (negatively charged) and neutral preparations. However, cationic liposomes are particularly preferred because a tight charge complex can be formed between the cationic liposome and the polyanionic nucleic acid. Cationic liposomes have been shown to mediate intracellular delivery of plasmid DNA (Felgner et al., Proc. Natl. Acad. Sci. USA (1987) 84:7413-7416,. . .

SUMM [0410] Cationic liposomes are readily available. For example, N[1,2,3-dioleyloxy)propyl]-N,N,N-triethylammonium (DOTMA) liposomes are particularly useful and are available under the trademark Lipofectin, from GIBCO BRL, Grand Island, N.Y. (See, also, Felgner et al., Proc. Natl Acad. Sci. USA (1987) 84:7413-7416, which is herein incorporated by reference). Other commercially available liposomes include transfectace (DDAB/DOPE) and DOTAP/DOPE (Boehringer).

SUMM [0411] Other cationic liposomes can be prepared from readily

available materials using techniques well known in the art. See, e.g. PCT Publication No. WO 90/11092 (which is herein incorporated by reference) for a description of the synthesis of DOTAP (1,2-bis(oleoyloxy)-3-(trimethylammonio)propane) liposomes. Preparation of DOTMA liposomes is explained in the literature, see, e.g., P. Felgner et al., Proc. Natl. Acad. Sci. USA 84:7413-7417, which is herein incorporated by reference. Similar methods can be used to prepare liposomes from other cationic lipid materials.

SUMM [0412] Similarly, anionic and neutral liposomes are readily available, such as from Avanti Polar Lipids (Birmingham, Ala.), or can be easily prepared using readily available materials.. . . others. These materials can also be mixed with the DOTMA and DOTAP starting materials in appropriate ratios. Methods for making liposomes using these materials are well known in the art.

SUMM . . . commercially dioleoylphosphatidyl choline (DOPC), dioleoylphosphatidyl glycerol (DOPG), and dioleoylphosphatidyl ethanolamine (DOPE) can be used in various combinations to make conventional liposomes, with or without the addition of cholesterol. Thus, for example, DOPG/DOPC vesicles can be prepared by drying 50 mg each. . .

SUMM [0414] The liposomes can comprise multilamellar vesicles (MLVs), small unilamellar vesicles (SUVs), or large unilamellar vesicles (LUVs), with SUvs being preferred. The various liposome -nucleic acid complexes are prepared using methods well known in the art. See, e.g., Straubinger et al., Methods of Immunology (1983),. . . the material to be encapsulated. SUVs are prepared by extended sonication of MLVs to produce a homogeneous population of unilamellar liposomes. The material to be entrapped is added to a suspension of preformed MLVs and then sonicated. When using liposomes containing cationic lipids, the dried lipid film is resuspended in an appropriate solution such as sterile water or an isotonic buffer solution such as 10 mM Tris/NaCl, sonicated, and then the preformed liposomes are mixed directly with the DNA. The liposome and DNA form a very stable complex due to binding of the positively charged liposomes to the cationic DNA. SUVs find use with small nucleic acid fragments. LUVs are prepared by a number of methods,. . .

SUMM [0415] Generally, the ratio of DNA to liposomes will be from about 10:1 to about 1:10. Preferably, the ration will be from about 5:1 to about 1:5. More. . .

SUMM . . . U.S. Pat. No. 5,676,954 (which is herein incorporated by reference) reports on the injection of genetic material, complexed with cationic liposomes carriers, into mice. U.S. Pat. Nos. 4,897,355, 4,946,787, 5,049,386, 5,459,127, 5,589,466, 5,693,622, 5,580,859, 5,703,055, and international publication no. WO 94/9469. . .

SUMM . . . cells through any means known in the art. Such means include, but are not limited to, electroporation, the use of liposomes, and CaPO.sub.4 precipitation. In one alternative, the retroviral plasmid vector may be encapsulated into a liposome, or coupled to a lipid, and then administered to a host.

SUMM . . . promoter-targeting sequence construct is delivered to the cells, either as naked polynucleotide, or in conjunction with transfection-facilitating agents, such as liposomes, viral sequences, viral particles, whole viruses, lipofection, precipitating agents, etc., described in more detail above. The P promoter-targeting sequence can. . .

SUMM . . . invention complexed to a targeted delivery vehicle of the present invention. Suitable delivery vehicles for use with systemic administration comprise liposomes comprising ligands for

targeting the vehicle to a particular site.

SUMM . . . and rheumatoid arthritis) myelodysplastic syndromes (such as aplastic anemia), graft v. host disease, ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), liver injury (e.g., hepatitis related liver injury, ischemia/reperfusion injury, cholestosis (bile duct injury) and liver cancer);. . .

SUMM . . . of skill in the art including, but not limited to transfection, electroporation, microinjection of cells, or in vehicles such as liposomes, lipofectin, or as naked polynucleotides, or any other method described throughout the specification. The polynucleotide of the present invention may. . .

SUMM . . . arrest, congestive heart failure, congestive cardiomyopathy, paroxysmal dyspnea, cardiac edema, heart hypertrophy, congestive cardiomyopathy, left ventricular hypertrophy, right ventricular hypertrophy, post-infarction heart rupture, ventricular septal rupture, heart valve diseases, myocardial diseases, myocardial ischemia, pericardial effusion, pericarditis (including constrictive and tuberculous), pneumopericardium,. . .

SUMM [0554] Myocardial ischemias include coronary disease, such as angina pectoris, coronary aneurysm, coronary arteriosclerosis, coronary thrombosis, coronary vasospasm, myocardial infarction and myocardial stunning.

SUMM . . . cerebral embolism and thrombosis, carotid artery thrombosis, sinus thrombosis, Wallenberg's syndrome, cerebral hemorrhage, epidural hematoma, subdural hematoma, subaraxhnoid hemorrhage, cerebral infarction, cerebral ischemia (including transient), subclavian steal syndrome, periventricular leukomalacia, vascular headache, cluster headache, migraine, and vertebrobasilar insufficiency.

SUMM . . . and rheumatoid arthritis) myelodysplastic syndromes (such as aplastic anemia), graft v. host disease, ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), liver injury (e.g., hepatitis related liver injury, ischemia/reperfusion injury, cholestosis (bile duct injury) and liver cancer);. . .

SUMM . . . which a lack of oxygen in a portion of the nervous system results in neuronal injury or death, including cerebral infarction or ischemia, or spinal cord infarction or ischemia; (2) traumatic lesions, including lesions caused by physical injury or associated with surgery, for example, lesions which sever. . .

SUMM . . . polynucleotides, or agonists or antagonists of the invention are used to treat or prevent neural cell injury associated with cerebral infarction.

SUMM . . . motor neuron disorders that may be treated according to the invention include, but are not limited to, disorders such as infarction, infection, exposure to toxin, trauma, surgical damage, degenerative disease or malignancy that may affect motor neurons as well as other. . .

SUMM . . . (e.g., carotid artery thrombosis, sinus thrombosis, or Wallenberg's Syndrome), cerebral hemorrhage (e.g., epidural or subdural hematoma, or subarachnoid hemorrhage), cerebral infarction, cerebral ischemia (e.g., transient cerebral ischemia, Subclavian Steal Syndrome, or vertebrobasilar insufficiency), vascular dementia (e.g., multi-infarct), leukomalacia, periventricular, and vascular headache (e.g., cluster headache or migraines).

SUMM . . . carotid artery thrombosis, sinus thrombosis and Wallenberg's Syndrome, cerebral hemorrhage such as epidural hematoma, subdural hematoma and subarachnoid hemorrhage, cerebral infarction, cerebral ischemia such as transient cerebral ischemia, Subclavian Steal

Syndrome and vertebrobasilar insufficiency, vascular dementia such as multi-infarct dementia, periventricular leukomalacia, vascular headache such as cluster headache and migraine.

SUMM . . . as Alzheimer's Disease and Creutzfeldt-Jakob Syndrome, senile dementia such as Alzheimer's Disease and progressive supranuclear palsy, vascular dementia such as multi-infarct dementia, encephalitis which include encephalitis periaxialis, viral encephalitis such as epidemic encephalitis, Japanese Encephalitis, St. Louis Encephalitis, tick-borne encephalitis and. . .

DETD . . . (1982)), ethylene vinyl acetate (R. Langer et al.) or poly-D-(-)-3-hydroxybutyric acid (EP 133,988). Sustained-release compositions also include liposomally entrapped polypeptides. Liposomes containing the secreted polypeptide are prepared by methods known per se: DE 3,218,121; Epstein et al., Proc. Natl. Acad. Sci.. . . 88,046; EP 143,949; EP 142,641; Japanese Pat. Appl. 83-118008; U.S. Pat. Nos. 4,485,045 and 4,544,545; and EP 102,324. Ordinarily, the liposomes are of the small (about 200-800 Angstroms) unilamellar type in which the lipid content is greater than about 30 mol.. . .

DETD . . . solution, and dextrose solution. Non-aqueous vehicles such as fixed oils and ethyl oleate are also useful herein, as well as liposomes.

DETD . . . be used for therapeutic administration can be sterile. Sterility is readily accomplished by filtration through sterile filtration membranes (e.g., 0.2 micron membranes). Therapeutic polypeptide compositions generally are placed into a container having a sterile access port, for example, an intravenous solution. . .

DETD . . . the invention is contemplated for the prevention, diagnosis, and/or treatment of thrombosis, arterial thrombosis, venous thrombosis, thromboembolism, pulmonary embolism, atherosclerosis, myocardial infarction, transient ischemic attack, unstable angina. In specific embodiments, the use of anticoagulants, thrombolytic drugs and/or antiplatelet drugs in combination with. . .

DETD . . . (ethinyl estradiol/ethynodiol diacetate), NORINYL.TM., ORTHO-NOVUM.TM., NORETHIN.TM., GENORA.TM., and NELOVA.TM. (norethindrone/mestranol), DESOGEN.TM. and ORTHO-CEPT.TM. (ethinyl estradiol/desogestrel), ORTHO-CYCLEN.TM. and ORTHO-TRICYCLEN.TM. (ethinyl estradiol/norgestimate), MICRONOR.TM. and NOR-QD.TM. (norethindrone), and OVRETTE.TM. (norgestrel).

DETD . . . and NOVOLIN.TM.; oral hypoglycemic agents such as ORAMIDE.TM. and ORINASE.TM. (tolbutamide), DIABINESE.TM. (chlorpropamide), TOLAMIDE.TM. and TOLINASE.TM. (tolazamide), DYMELOR.TM. (acetohexamide), glibenclamide, MICRONASE.TM., DIBETA.TM. and GLYNASE.TM. (glyburide), GLUCOTROL.TM. (glipizide), and DIAMICRON.TM. (gliclazide), GLUCOPHAGE.TM. (metformin), PRECOSE.TM. (acarbose), AMARYL.TM. (glimepiride), and ciglitazone; thiazolidinediones (TZDs) such. . .

DETD . . . as conjugated estrogens (e.g., PREMARIN® and ESTRATAB®), estradiols (e.g., CLIMARA® and ALORA®), estropipate, and chlorotrianisene; progestin drugs (e.g., AMEN® (medroxyprogesterone), MICRONOR® (norethidrone acetate), PROMETRIUM® progesterone, and megestrol acetate); and estrogen/progesterone combination therapies such as, for example, conjugated estrogens/medroxyprogesterone (e.g., PREMPRO.TM. and. . .

DETD . . . are administered as naked polynucleotides via electroporation. However, the polynucleotide constructs may also be administered with transfection-facilitating agents, such as liposomes, viral sequences, viral particles, precipitating agents, etc. Such methods of delivery are known in the art.

DETD . . . from any delivery vehicle that acts to assist, promote, or facilitate entry into the cell, including viral sequences, viral

particles, liposome formulations, lipofectin or precipitating agents and the like. However, the PTPase polynucleotides may also be delivered in liposome formulations (such as those taught in Felgner et al., Ann. NY Acad. Sci., 772:126-139 (1995) and Abdallah et al., Biol.. . .

DETD . . . methodology. The template DNA, which may be either circular or linear, is either used as naked DNA or complexed with liposomes . The quadriceps muscles of mice are then injected with various amounts of the template DNA.

L22 ANSWER 6 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2003:250423 USPATFULL

TITLE: Neutrokine-alpha and neutrokine-alpha splice variant

INVENTOR(S): Yu, Guo-Liang, Berkeley, CA, UNITED STATES
Ebner, Reinhard, Gaithersburg, MD, UNITED STATES
Ni, Jian, Germantown, MD, UNITED STATES
Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ullrich, Stephen, Rockville, MD, UNITED STATES
Laird, Michael, Germantown, MD, UNITED STATES

PATENT ASSIGNEE(S): Human Genome Sciences, Inc., Rockville, MD, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030175208	A1	20030918	<--
APPLICATION INFO.:	US 2002-270487	A1	20021016 (10)	

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-929493, filed on 15 Aug 2001, PENDING Continuation-in-part of Ser. No. US 2000-588947, filed on 8 Jun 2000, ABANDONED Continuation-in-part of Ser. No. US 2000-589285, filed on 8 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-589286, filed on 8 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-589287, filed on 8 Jun 2000, GRANTED, Pat. No. US 6403770 Continuation-in-part of Ser. No. US 2000-589288, filed on 8 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-507968, filed on 22 Feb 2000, PENDING Continuation-in-part of Ser. No. US 1999-255794, filed on 23 Feb 1999, PENDING Continuation-in-part of Ser. No. US 2000-588947, filed on 8 Jun 2000, ABANDONED Continuation-in-part of Ser. No. US 2000-589285, filed on 8 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-589286, filed on 8 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-589288, filed on 8 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-507968, filed on 22 Feb 2000, PENDING Continuation-in-part of Ser. No. US 1999-255794, filed on 23 Feb 1999, PENDING Continuation-in-part of Ser. No. US 1998-5874, filed on 12 Jan 1998, PENDING Continuation-in-part of Ser. No. WO 1996-US17957, filed on 25 Oct 1996, PENDING Continuation-in-part of Ser. No. US 1999-255794, filed on 23 Feb 1999, PENDING Continuation-in-part of Ser. No. US 1998-5874, filed on 12 Jan 1998, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-329508P	20011017 (60)
	US 2001-329747P	20011018 (60)
	US 2001-330835P	20011031 (60)

	US 2001-331478P	20011116 (60)
	US 2001-336726P	20011207 (60)
	US 2002-368548P	20020401 (60)
	US 2000-225628P	20000815 (60)
	US 2000-227008P	20000823 (60)
	US 2000-234338P	20000922 (60)
	US 2000-240806P	20001017 (60)
	US 2000-250020P	20001130 (60)
	US 2001-276248P	20010316 (60)
	US 2001-293499P	20010525 (60)
	US 2001-296122P	20010607 (60)
	US 2001-304809P	20010713 (60)
	US 1999-122388P	19990302 (60)
	US 1999-124097P	19990312 (60)
	US 1999-126599P	19990326 (60)
	US 1999-127598P	19990402 (60)
	US 1999-130412P	19990416 (60)
	US 1999-130696P	19990423 (60)
	US 1999-131278P	19990427 (60)
	US 1999-131673P	19990429 (60)
	US 1999-136784P	19990528 (60)
	US 1999-142659P	19990706 (60)
	US 1999-145824P	19990727 (60)
	US 1999-167239P	19991124 (60)
	US 1999-168624P	19991203 (60)
	US 1999-171108P	19991216 (60)
	US 1999-171626P	19991223 (60)
	US 2000-176015P	20000114 (60)
	US 1999-122388P	19990302 (60)
	US 1999-124097P	19990312 (60)
	US 1999-126599P	19990326 (60)
	US 1999-127598P	19990402 (60)
	US 1999-130412P	19990416 (60)
	US 1999-130696P	19990423 (60)
	US 1999-131278P	19990427 (60)
	US 1999-131673P	19990429 (60)
	US 1999-136784P	19990528 (60)
	US 1999-142659P	19990706 (60)
	US 1999-145824P	19990727 (60)
	US 1999-167239P	19991124 (60)
	US 1999-168624P	19991203 (60)
	US 1999-171108P	19991216 (60)
	US 1999-171626P	19991223 (60)
	US 2000-176015P	20000114 (60)
	US 1997-36100P	19970114 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850	
NUMBER OF CLAIMS:	44	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	27 Drawing Page(s)	
LINE COUNT:	18884	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . invention may be the result of hydrophobic, hydrophilic, ionic and/or covalent associations and/or may be indirectly linked, by for example, liposome formation. Thus, in one embodiment, multimers of the invention, such as, for example, homodimers or homotrimers, are formed when polypeptides. . .

DETD . . . which is herein incorporated by reference in its entirety). Additionally, techniques known in the art may be applied to generate liposomes containing the polypeptide components desired to be contained in the multimer of the invention (see, e.g., U.S. Pat. No. 5,478,925,. . .

DETD . . . recombinant polypeptides of the invention which contain a transmembrane domain and which can be incorporated by membrane reconstitution techniques into liposomes (see, e.g., U.S. Pat. No. 5,478,925, which is herein incorporated by reference in its entirety).

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the polypeptides of the invention can be placed under the control of a strong constitutive. . .

DETD . . . (TAXOL", Bristol-Myers Squibb Oncology, Princeton, N.J.) doxetaxel (TAXOTERE", Rh6ne-Poulenc Rorer, Antony, France), gemcitabine, ifosfamide, vinorelbine, navelbine, novantrone, teniposide, aminopterin, xeloda, ibandronate, CPT-I 1, topoisomerase inhibitor RFS 2000, difluoromethylornithine (DMFO), retinoic acid, esperamicins, capecitabine, and pharmaceutically acceptable salts, acids or derivatives of. . .

DETD . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

DETD [0495] Various delivery systems are known and can be used to administer a compound of the invention, e.g., encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the compound, receptor-mediated endocytosis (see, e.g., Wu and Wu, J. Biol. Chem. 262:4429-4432. . .

DETD [0497] In another embodiment, the compound or composition can be delivered in a vesicle, in particular a liposome (see Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, N.Y., pp. 353- .sup.365 (1989); Lopez-Berestein, ibid.,. . .

DETD . . . diagnose, thrombotic related events including, but not limited to, stroke (and recurrent stroke), heart attack, deep vein thrombosis, pulmonary embolism, myocardial infarction, coronary artery disease (e.g,. antibody-mediated coronary artery disease), thrombosis, graft reocclusion following cardiovascular surgery (e.g,. coronary arterial bypass grafts, recurrent. . .

DETD . . . Amyotrophic lateral sclerosis, Retinitis pigmentosa, Cerebellar degeneration); myelodysplastic syndromes (such as aplastic anemia), ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), toxin-induced liver disease (such as that caused by alcohol), septic shock, cachexia and anorexia. Thus, in. . .

DETD . . . infection, nephritis, bone disease (e.g., osteoporosis), atherosclerosis, pain, cardiovascular disorders (e.g., neovascularization, hypovascularization or reduced circulation (e.g., ischemic disease (e.g., myocardial infarction, stroke, etc.)), AIDS, allergy, inflammation, neurodegenerative disease (e.g., Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, pigmentary retinitis, cerebellar degeneration, etc.),. . .

DETD . . . Sustained-release compositions also include liposomally entrapped compositions of the invention (see generally, Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the

Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 317-327 and 353-365 (1989)). Liposomes containing Neutrokine-alpha and/or Neutrokine-alphaSV polypeptide my be prepared by methods known per se: DE 3,218,121; Epstein et al., Proc. Natl.. . . 88,046; EP 143,949; EP 142,641; Japanese Pat. Appl. 83-118008; U.S. Pat. Nos. 4,485,045 and 4,544,545; and EP 102,324. Ordinarily, the liposomes are of the small (about 200-800 Angstroms) unilamellar type in which the lipid content is greater than about 30 mol.. . .

DETD . . . solution, and dextrose solution. Non-aqueous vehicles such as fixed oils and ethyl oleate are also useful herein, as well as liposomes.

DETD . . . be used for therapeutic administration must be sterile. Sterility is readily accomplished by filtration through sterile filtration membranes (e.g., 0.2 micron membranes). Therapeutic Neutrokine-alpha and/or Neutrokine-alphaSV polypeptide compositions generally are placed into a container having a sterile access port, for example,. . .

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the polypeptides of the invention can be placed under the control of a strong constitutive. . .

DETD . . . are administered as naked polynucleotides via electroporation. However, the polynucleotide constructs may also be administered with transfection-facilitating agents, such as liposomes, viral sequences, viral particles, precipitating agents, etc. Such methods of delivery are known in the art.

DETD . . . twenty minutes at 4° C. using a Sorvall SLA-1500 rotor. The supernatant is then collected and filtered through a 0.45 micron bottle top filter (Nalgene).

DETD . . . NaCl step in equilibration buffer. Buffers used with the Fast Flow Sepharose DEAE chromatography column are pre-filtered using a 0.22 micron CA bottle top filter (Nalgene) and pre-chilled to 4° C. The Fast Flow Sepharose DEAE column is used at 4°. . .

DETD . . . gradient absorbance at 280 nm. Buffers used with the Polypropylene Glycol Hydrophobic Interaction chromatography column are pre-filtered using a 0.22 micron CA bottle top filter (Nalgene) and used at room temperature. The Polypropylene Glycol Hydrophobic Interaction chromatography column is also used. . .

DETD . . . and stored at 4° C. Buffers used with the POROS PI-50 anion exchange chromatography column are pre-filtered using a 0.22 micron CA bottle top filter (Nalgene) and pre-chilled to 4° C. The POROS PI-50 anion exchange chromatography column is used at. . .

L22 ANSWER 7 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2003:181524 USPATFULL
TITLE: Therapeutic compounds for treating dyslipidemic conditions
INVENTOR(S): Adams, Alan D., Cranford, NJ, UNITED STATES
Bouffard, Aileen, Scotch Plains, NJ, UNITED STATES
Dropinski, James F., Colts Neck, NJ, UNITED STATES
Gutteridge, Clare E., Dover, NH, UNITED STATES
Jones, A. Brian, Harlow, UNITED KINGDOM
Lui, Weiguo, Princeton, NJ, UNITED STATES
Ondeyka, John George, Fanwood, NJ, UNITED STATES
Shiafee, Ali, Westfield, NJ, UNITED STATES
Singh, Sheo Bux, Edison, NJ, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030125357	A1	20030703	<--
	US 6908934	B2	20050621	
APPLICATION INFO.:	US 2002-158679	A1	20020530	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-297400P	20010611 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MERCK AND CO INC, P O BOX 2000, RAHWAY, NJ, 070650907
NUMBER OF CLAIMS: 25
EXEMPLARY CLAIM: 1
LINE COUNT: 1675
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . art as ABC1) have low levels of high density lipoprotein (HDL). Low HDL levels are a risk factor for atherosclerosis, myocardial infarction and related conditions such as ischemic stroke. Therefore, increasing the expression of the ABCA1 gene would be expected to increase HDL levels and decrease the occurrence of atherosclerosis, myocardial infarction and related conditions such as ischemic stroke. It has been reported that expression of the ABCA1 gene is increased by. . . useful as drugs to increase the expression of ABCA1, increase levels of HDL and thereby decrease the risk of atherosclerosis, myocardial infarction and related conditions such as peripheral vascular disease and ischemic stroke.

SUMM . . . in a patient with atherosclerotic disease manifest by clinical signs such as angina, claudication, bruits, one that has suffered a myocardial infarction or transient ischemic attack, or one diagnosed by angiography, sonography or MRI.

SUMM . . . restenosis following revascularization procedures, coronary heart disease (also known as coronary artery disease or ischemic heart disease), cerebrovascular disease including multi-infarct dementia, and peripheral vessel disease including erectile dysfunction are all clinical manifestations of atherosclerosis and are therefore encompassed by the. . .

SUMM . . . coronary heart disease event, a cerebrovascular event, and/or intermittent claudication. Coronary heart disease events are intended to include CHD death, myocardial infarction (i.e., a heart attack), and coronary revascularization procedures. Cerebrovascular events are intended to include ischemic or hemorrhagic stroke (also known. . .

SUMM [0093] The active drug can also be administered in the form of liposome delivery systems, such as small unilamellar vesicles, large unilamellar vesicles and multilamellar vesicles. Liposomes can be formed from a variety of phospholipids, such as cholesterol, stearylamine or phosphatidylcholines.

SUMM . . . as thiazolidinediones as well as those PPARγ agonists outside the thiazolidinedione structural class; PPARα agonists such as clofibrate, fenofibrate including micronized fenofibrate, and gemfibrozil; PPAR dual α/γ agonists; vitamin B.sub.6 (also known as pyridoxine) and the pharmaceutically acceptable salts thereof such. . . such as nifedipine and diltiazam; endothelian antagonists; agents that enhance ABCA1 gene expression; FXR ligands including both inhibitors and agonists; bisphosphonate compounds such as alendronate sodium; and cyclooxygenase-2 inhibitors such as rofecoxib and celecoxib. Additionally, the compounds

of Formula I of this invention, may be. . .

L22 ANSWER 8 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2003:180349 USPATFULL
TITLE: Transdermal and topical administration of drugs using basic permeation enhancers
INVENTOR(S): Hsu, Tsung-Min, San Diego, CA, UNITED STATES
Gricenko, Nicole T., San Diego, CA, UNITED STATES
Hickey, Alan T.J., San Diego, CA, UNITED STATES
Jacobson, Eric C., San Diego, CA, UNITED STATES
LoBello, Rose C., San Diego, CA, UNITED STATES
Obara, Jane, San Diego, CA, UNITED STATES
Luo, Eric C., Plano, TX, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030124176	A1	20030703	<--
APPLICATION INFO.:	US 2002-176952	A1	20020621 (10)	

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-972008, filed on 4 Oct 2001, PENDING Continuation-in-part of Ser. No. US 2000-738410, filed on 14 Dec 2000, PENDING Continuation-in-part of Ser. No. US 2000-569889, filed on 11 May 2000, PENDING Continuation-in-part of Ser. No. US 1999-465098, filed on 16 Dec 1999, ABANDONED Continuation-in-part of Ser. No. US 2000-738395, filed on 14 Dec 2000, PENDING Continuation of Ser. No. US 2000-607892, filed on 30 Jun 2000, ABANDONED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: REED & ASSOCIATES, 800 MENLO AVENUE, SUITE 210, MENLO PARK, CA, 94025
NUMBER OF CLAIMS: 72
EXEMPLARY CLAIM: 1
LINE COUNT: 4440
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . topical compositions or transdermally administered drugs. The stratum corneum is a thin layer of dense, highly keratinized cells approximately 10-15 microns thick over most of the body. It is believed to be the high degree of keratinization within these cells as. . .

SUMM . . . and salicylic acid in particular, include, but are not limited to, treating fever (via the anti-pyretic property of NSAIDs) or myocardial infarction, transient ischemic attacks, and acute superficial thrombophlebitis (via inhibition of platelet aggregation). Further non-limiting uses for NSAIDs include either single. . .

SUMM . . . regulators that may be administered using the methods, compositions and systems of the invention include, but are not limited to: alendronate, calcitonin, etidronate, pamidronate, raloxifene, risedronate, and tiludronate. Derivatives of these compounds, such as pharmaceutically acceptable salts and esters are also of particular interest, for example, alendronate sodium, etidronate sodium and etidronate disodium, pamidronate disodium, raloxifene HCl, risedronate sodium, and tiludronate sodium. Preferred bone density regulators include alendronate, etidronate, raloxifene, and risedronate, tiludronate, and pharmaceutically acceptable derivatives thereof.

SUMM [0240] Formulations may also be prepared with liposomes,

micelles, and microspheres. Liposomes are microscopic vesicles having a lipid wall comprising a lipid bilayer, and can be used as drug delivery systems herein as well. Generally, liposome formulations are preferred for poorly soluble or insoluble pharmaceutical agents. Liposomal preparations for use in the instant invention include cationic (positively charged), anionic (negatively charged) and neutral preparations. Cationic liposomes are readily available. For example, N-[1-2,3-dioleyloxy)propyl]-N,N,N-triethylammonium liposomes are available under the tradename Lipofectin® (GIBCO BRL, Grand Island, N.Y.). Anionic and neutral liposomes are readily available as well, e.g., from Avanti Polar Lipids (Birmingham, Ala.), or can be easily prepared using readily available. . . . glycerol, dioleoylphoshatidyl ethanolamine, among others. These materials can also be mixed with N-[1-2,3-dioleyloxy)propyl]-N,N,N-triethylammonium (DOTMA) in appropriate ratios. Methods for making liposomes using these materials are well known in the art.

SUMM [0242] Microspheres, similarly, may be incorporated into the present formulations and drug delivery systems. Like liposomes and micelles, microspheres essentially encapsulate a drug or drug-containing formulation. They are generally, although not necessarily, formed from lipids, preferably. . .

DETD [0401] An in-vitro skin permeation study was conducted using three alendronate sodium transdermal systems, designated, Al-1, Al-2 and Al-3, the compositions of which are set forth in Table 66.

DETD . . . 66

Component Weight and Weight Percent Based on Total Solution Weight

	Al-1 g (wt %)	Al-2 g (wt %)	Al-3 g (wt %)
Alendronate sodium	0.30 (3.2)	0.30 (3.2)	0.30 (3.2)
Glycerin	1.00 (10.8)	1.00 (10.6)	1.00 (10.5)
NaOH	0	0.05 (0.5)	0.10 (1.1)
PIB adhesive	7.5. . .		

DETD . . . 67

Component Weight and Weight Percent Based on Dried Film Weight

	Al-1 g (wt %)	Al-2 g (wt %)	Al-3 g (wt %)
Alendronate sodium	0.30 (8.5)	0.30 (8.3)	0.30 (8.2)
Glycerin	1.00 (28.2)	1.00 (27.8)	1.00 (27.4)
NaOH	0	0.05 (1.4)	0.10 (2.7)
PIB adhesive	2.25. . .		

DETD [0405] Even though alendronate sodium may behave as an acid and react with NaOH, the amount of NaOH consumed by this reaction was not determined. For the ease of comparison, it was assumed that the reaction between alendronate sodium and NaOH was not significant. Therefore, the NaOH concentration listed in Table 67 equals the excess NaOH concentration, calculated. . .

DETD . . . patches was measured as described in the Methods section but using a 2.4 cm.sup.2 circular patch. The pH of the alendronate sodium patch increased from 5.50 to 9.66 when the calculated excess NaOH concentration in the dried patch was increased from. . .

DETD [0407] The in vitro permeation of alendronate sodium through

human cadaver skin from these discs was measured as described in the Methods section. Three diffusion cells were. . . fresh receiver solution at each time point. The samples taken were analyzed by a derivatization method for the concentration of alendronate sodium in the receiver solution. The cumulative amount of alendronate sodium across human cadaver skin was calculated using the measured alendronate sodium concentrations in the receiver solutions.

TABLE 69

Cumulative Amount of Alendronate Sodium (mg/cm.sup.2)

Time	Al-1	Al-2	Al-3
5.5 hours	0.046	0.303	0.466
18 hours	0.215	0.498	0.784
24 hours	0.301	0.555. . .	

DETD [0408] The cumulative amount of alendronate sodium across human cadaver skin at 24 hours increased from 0.301 mg/cm.sup.2 to 0.873 mg/cm.sup.2 when the calculated excess NaOH. . .

DETD [0409] The formulation of Al-2 provided up to 2-fold more alendronate sodium flux than in the absence of NaOH (Al-1). The highest pH formulation evaluated, Al-3, provided up to 3-fold more. . .

IT 53-86-1, Indomethacin 57-27-2, Morphine, biological studies 57-42-1, Meperidine 71-68-1, Hydromorphone hydrochloride 76-41-5, Oxymorphone 76-42-6, Oxycodone 76-57-3, Codeine 76-99-3, Methadone 77-07-6, Levorphanol 125-29-1, Hydrocodone 137-58-6, Lidocaine 154-41-6, Phenylpropanolamine hydrochloride 359-83-1, Pentazocine 404-86-4, Capsaicin 437-38-7, Fentanyl 466-99-9, Hydromorphone 469-62-5, Propoxyphene 639-48-5, Nicomorphine 1953-04-4, Galanthamine hydrobromide 4205-90-7, Clonidine 15307-79-6, Diclofenac sodium 15687-27-1, Ibuprofen 22071-15-4, Ketoprofen 27203-92-5, Tramadol 42408-82-2, Butorphanol 52485-79-7, Buprenorphine 71195-58-9, Alfentanil 76095-16-4, Enalapril maleate 78246-49-8, Paroxetine hydrochloride 129318-43-0, Alendronate sodium
(transdermal and topical administration of drugs by using basic permeation enhancers)

L22 ANSWER 9 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2003:152375 USPATFULL			
TITLE:	Transdermal and topical administration of drugs using basic permeation enhancers			
INVENTOR(S):	Hsu, Tsung-Min, San Diego, CA, UNITED STATES Gricenko, Nicole T., San Diego, CA, UNITED STATES Hickey, Alan T. J., San Diego, CA, UNITED STATES Jacobson, Eric C., San Diego, CA, UNITED STATES LoBello, Rose C., San Diego, CA, UNITED STATES Obara, Jane, San Diego, CA, UNITED STATES Luo, Eric C., Plano, TX, UNITED STATES			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030104041	A1	20030605	<--
APPLICATION INFO.:	US 2002-177436	A1	20020620	(10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-972008, filed on 4 Oct 2001, PENDING Continuation-in-part of Ser. No. US 2000-738410, filed on 14 Dec 2000, PENDING Continuation-in-part of Ser. No. US 2000-569889, filed on 11 May 2000, PENDING Continuation-in-part of Ser.			

No. US 1999-465098, filed on 16 Dec 1999, PENDING Continuation-in-part of Ser. No. US 2000-738395, filed on 14 Dec 2000, PENDING Continuation-in-part of Ser. No. US 2000-607892, filed on 30 Jun 2000, ABANDONED

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: REED & ASSOCIATES, 800 MENLO AVENUE, SUITE 210, MENLO PARK, CA, 94025
NUMBER OF CLAIMS: 72
EXEMPLARY CLAIM: 1
LINE COUNT: 4474
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . topical compositions or transdermally administered drugs. The stratum corneum is a thin layer of dense, highly keratinized cells approximately 10-15 microns thick over most of the body. It is believed to be the high degree of keratinization within these cells as. . .

SUMM . . . and salicylic acid in particular, include, but are not limited to, treating fever (via the anti-pyretic property of NSAIDs) or myocardial infarction, transient ischemic attacks, and acute superficial thrombophlebitis (via inhibition of platelet aggregation). Further non-limiting uses for NSAIDs include either single. . .

SUMM . . . regulators that may be administered using the methods, compositions and systems of the invention include, but are not limited to: alendronate, calcitonin, etidronate, pamidronate, raloxifene, risedronate, and tiludronate. Derivatives of these compounds, such as pharmaceutically acceptable salts and esters are also of particular interest, for example, alendronate sodium, etidronate sodium and etidronate disodium, pamidronate disodium, raloxifene HCl, risedronate sodium, and tiludronate sodium. Preferred bone density regulators include alendronate, etidronate, raloxifene, and risedronate, tiludronate, and pharmaceutically acceptable derivatives thereof.

SUMM [0246] Formulations may also be prepared with liposomes, micelles, and microspheres. Liposomes are microscopic vesicles having a lipid wall comprising a lipid bilayer, and can be used as drug delivery systems herein as well. Generally, liposome formulations are preferred for poorly soluble or insoluble pharmaceutical agents. Liposomal preparations for use in the instant invention include cationic (positively charged), anionic (negatively charged) and neutral preparations. Cationic liposomes are readily available. For example, N-[1-2,3-dioleyloxy)propyl]-N,N,N-triethylammonium liposomes are available under the tradename Lipofectin® (GIBCO BRL, Grand Island, N.Y.). Anionic and neutral liposomes are readily available as well, e.g., from Avanti Polar Lipids (Birmingham, Ala.), or can be easily prepared using readily available. . . glycerol, dioleoylphoshatidyl ethanolamine, among others. These materials can also be mixed with N-[1-2,3-dioleyloxy)propyl]-N,N,N-triethylammonium (DOTMA) in appropriate ratios. Methods for making liposomes using these materials are well known in the art.

SUMM [0248] Microspheres, similarly, may be incorporated into the present formulations and drug delivery systems. Like liposomes and micelles, microspheres essentially encapsulate a drug or drug-containing formulation. They are generally, although not necessarily, formed from lipids, preferably. . .

DETD [0406] An in-vitro skin permeation study was conducted using three

alendronate sodium transdermal systems, designated, A1-1, A1-2 and A1-3, the compositions of which are set forth in Table 66.

DETD . . . 66

Component Weight and Weight Percent Based on Total Solution Weight

	A1-1 g (wt %)	A1-2 g (wt %)	A1-3 g (wt %)
Alendronate sodium	0.30 (3.2)	0.30 (3.2)	0.30 (3.2)
Glycerin	1.00 (10.8)	1.00 (10.6)	1.00 (10.5)
NaOH	0	0.05 (0.5)	0.10 (1.1)
PIB adhesive	7.5. . .		

DETD . . . 67

Component Weight and Weight Percent Based on Dried Film Weight

	A1-1 g (wt %)	A1-2 g (wt %)	A1-3 g (wt %)
Alendronate sodium	0.30 (8.5)	0.30 (8.3)	0.30 (8.2)
Glycerin	1.00 (28.2)	1.00 (27.8)	1.00 (27.4)
NaOH	0	0.05 (1.4)	0.10 (2.7)
PIB adhesive	2.25. . .		

DETD [0410] Even though alendronate sodium may behave as an acid and react with NaOH, the amount of NaOH consumed by this reaction was not determined. For the ease of comparison, it was assumed that the reaction between alendronate sodium and NaOH was not significant. Therefore, the NaOH concentration listed in Table 67 equals the excess NaOH concentration, calculated. . .

DETD . . . patches was measured as described in the Methods section but using a 2.4 cm.sup.2 circular patch. The pH of the alendronate sodium patch increased from 5.50 to 9.66 when the calculated excess NaOH concentration in the dried patch was increased from. . .

DETD [0412] The in vitro permeation of alendronate sodium through human cadaver skin from these discs was measured as described in the Methods section. Three diffusion cells were. . . fresh receiver solution at each time point. The samples taken were analyzed by a derivatization method for the concentration of alendronate sodium in the receiver solution. The cumulative amount of alendronate sodium across human cadaver skin was calculated using the measured alendronate sodium concentrations in the receiver solutions.

TABLE 69

Cumulative Amount of Alendronate Sodium (mg/cm.sup.2)

Time	A1-1	A1-2	A1-3
5.5 hours	0.046	0.303	0.466
18 hours	0.215	0.498	0.784
24 hours	0.301	0.555. . .	

DETD [0413] The cumulative amount of alendronate sodium across human cadaver skin at 24 hours increased from 0.301 mg/cm.sup.2 to 0.873 mg/cm.sup.2 when the calculated excess NaOH. . .

DETD [0414] The formulation of A1-2 provided up to 2-fold more alendronate sodium flux than in the absence of NaOH (A1-1). The highest pH formulation evaluated, A1-3, provided up to 3-fold more. .

.
IT 50-28-2, Estradiol, biological studies 50-56-6, Oxytocin, biological studies 53-86-1, Indomethacin 57-27-2, Morphine, biological studies 57-42-1, Meperidine 58-22-0, Testosterone 71-68-1, Hydromorphone hydrochloride 76-41-5, Oxymorphone 76-42-6, Oxycodone 76-57-3, Codeine 76-99-3, Methadone 77-07-6, Levorphanol 125-29-1, Hydrocodone 137-58-6, Lidocaine 154-41-6, Phenylpropanolamine hydrochloride 359-83-1, Pentazocine 404-86-4, Capsaicin 437-38-7, Fentanyl 466-99-9, Hydromorphone 469-62-5, Propoxyphene 639-48-5, Nicomorphine 1953-04-4, Galanthamine hydrobromide 4205-90-7, Clonidine 15307-79-6, Diclofenac sodium 15687-27-1, Ibuprofen 22071-15-4, Ketoprofen 27203-92-5, Tramadol 42408-82-2, Butorphanol 52485-79-7, Buprenorphine 53714-56-0, Leuprolide 56030-54-7, Sufentanil 71195-58-9, Alfentanil 76095-16-4, Enalapril maleate 78246-49-8, Paroxetine hydrochloride 106266-06-2, Risperidone 129318-43-0, Alendronate sodium
(bases as permeation enhancers for transdermal and topical compns.)

L22 ANSWER 10 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2003:142853 USPATFULL
TITLE:	Dihydroxy open-acid and salts of HMG-CoA reductase inhibitors
INVENTOR(S):	Tillyer, Richard D., Cranford, NJ, United States Reider, Paul J., Westfield, NJ, United States Grabowski, Edward J. J., Westfield, NJ, United States Xu, Feng, Staten Island, NY, United States Vega, Jose M., Trappe, PA, United States Asgharnejad, Mandana, Ambler, PA, United States
PATENT ASSIGNEE(S):	Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6569461	B1	20030527	<--
APPLICATION INFO.:	US 2000-558800		20000426 (9)	

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-516259, filed on 29 Feb 2000 Continuation-in-part of Ser. No. US 1999-264744, filed on 9 Mar 1999

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-123227P	19990308 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Page, Thurman K.
ASSISTANT EXAMINER:	Sheikh, Humera N.
LEGAL REPRESENTATIVE:	Quagliato, Carol S., Winokur, Melvin
NUMBER OF CLAIMS:	26
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT:	1841

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . a range from, but not limited to, 5% to 15% tablet weight gain, which corresponds to about 50 to 150 micron coating thickness, and particularly about 10% tablet weight gain.

DETD . . . restenosis following revascularization procedures, coronary heart disease (also known as coronary artery disease or ischemic heart disease), cerebrovascular disease including multi-infarct dementia, and peripheral vessel disease including erectile dysfunction

are all clinical manifestations of atherosclerosis and are therefore encompassed by the. . .

DETD . . . coronary heart disease event, a cerebrovascular event, and/or intermittent claudication. Coronary heart disease events are intended to include CHD death, myocardial infarction (i.e., a heart attack), and coronary revascularization procedures. Cerebrovascular events are intended to include ischemic or hemorrhagic stroke (also known. . .

DETD The active drug can also be administered in the form of liposome delivery systems, such as small unilamellar vesicles, large unilamellar vesicles and multilamellar vesicles. Liposomes can be formed from a variety of phospholipids, such as cholesterol, stearylamine or phosphatidylcholines.

DETD . . . as thiazolidinediones as well as those PPARγ agonists outside the thiazolidinedione structural class; PPARα agonists such as clofibrate, fenofibrate including micronized fenofibrate, and gemfibrozil; PPAR dual α/γ agonists; vitamin B.sub.6 (also known as pyridoxine) and the pharmaceutically acceptable salts thereof such. . . nifedipine and diltiazam; endothelian antagonists; agents that enhance ABC1 gene expression; FXR and LXR ligands including both inhibitors and agonists; bisphosphonate compounds such as alendronate sodium; and cyclooxygenase-2 inhibitors such as rofecoxib and celecoxib. Additionally, the dihydroxy open acid statins of this invention, for example. . .

DETD . . . the starting weight of the dosage form) was targeted for this product, corresponding to an approximate coating thickness of 100 microns.

DETD . . . monitor the coating endpoint. A weight gain of approximately 4-6 mg enteric polymer per cm.sup.2 tablet surface area (approximately 40-80 micron coating thickness, and approximately 6-10% weight gain based on the starting weight of the dosage form) was targeted as the. . .

L22 ANSWER 11 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2003:119621 USPATFULL
TITLE:	Methods and devices for detection and therapy of atheromatous plaque
INVENTOR(S):	Fischman, Alan, Boston, MA, UNITED STATES Hamblin, Michael R., Boston, MA, UNITED STATES Tawakol, Ahmed, Boston, MA, UNITED STATES Hasan, Tayyaba, Boston, MA, UNITED STATES Muller, James, Boston, MA, UNITED STATES Anderson, Rox, Boston, MA, UNITED STATES Elmaleh, David, Boston, MA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030082105	A1	20030501	<--
APPLICATION INFO.:	US 2002-215958	A1	20020809 (10)	

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2002-163744, filed on 4 Jun 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-295627P	20010604 (60)
	US 2002-365673P	20020315 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	FROMMER LAWRENCE & HAUG, 745 FIFTH AVENUE- 10TH FL.,

NEW YORK, NY, 10151
NUMBER OF CLAIMS: 124
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 26 Drawing Page(s)
LINE COUNT: 3612
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

RLI Continuation-in-part of Ser. No. US 2002-163744, filed on 4 Jun 2002, PENDING

SUMM . . . of plaque and are unrelated to plaque disruption. Unlike the rupture of less-stenotic lipid-rich plaques, leading to occlusion and subsequent infarction or other acute coronary syndromes, this process of occlusion from late stenotic plaques tends to be silent because the preceding. . .

SUMM . . . one year after the initial procedure. Acute coronary syndrome covers a group of sudden-onset coronary diseases, including unstable angina, acute myocardial infarction and sudden cardiac death. The causative agent of acute coronary syndrome is fissure, erosion or rupture of a specific kind. . .

DETD [0060] An "inactive or stable atheromatous plaque" comprises a thick fibrous cap, preferably greater than 200 microns thick, a small lipid pool or the absence thereof, which is only slowly accumulating lipids, if at all, and less. . .

DETD . . . pool, and a thin fibrous cap. Preferably, a vulnerable plaque comprises a fibrous cap that is less than about 150 microns thick. More preferably, a vulnerable plaque comprises a fibrous cap that is less than about 100 microns thick (e.g., between about 60 and 100 microns thick). Preferably, a vulnerable plaque comprises a macrophage and/or monocyte content that is greater than about 10%. More preferably, a. . .

DETD . . . atheromatous plaque and/or vulnerable plaque, for example, treatment by statins (e.g., atorvastatin, or pravastatin), cholesterol lowering drugs, aspirin, anti-inflammatory agents, bisphosphonates, eicosapentaenoic acid, docosahexaenoic acid, ACE inhibitors (e.g., ramipril), biomolecules (e.g., thrombin-activatable fibrinolysis inhibitor, Angpt13, or Apo-A1 mimetic peptide,) clot-reducing agents. . .

DETD . . . 26:147-157; Hamblin and Newman (1994) J. Photochem. Photobiol. 26:45-56), microspheres (Bachor et al. (1991) Proc. Natl. Acad. Sci. U.S.A. 88:1580-1584), liposomes (Polo et al. (1996) Cancer Lett. 109:57-61), polymers (Hamblin et al. (1999) Br. J. Cancer 81:261-268), monoclonal antibodies (Hamblin et. . . .

DETD . . . lipid pool of the atheroma, including but not limited to hydrophobic photosensitizers or photosensitizers delivered in hydrophobic vehicles such as liposomes (with positive, neutral or negatively charged and optionally containing cholesterol or cardiolipin) cremaphor EL, PEG/solvent mixtures, iodized castor oil, and. . .

DETD [0175] An "inactive or stable atheromatous plaque" comprises a thick fibrous cap, preferably greater than 200 microns thick, a small lipid pool or the absence thereof, which is only slowly accumulating lipids, if at all, and less. . .

DETD . . . pool, and a thin fibrous cap. Preferably, a vulnerable plaque comprises a fibrous cap that is less than about 150 microns thick. More preferably, a vulnerable plaque comprises a fibrous cap that is less than about 100 microns thick (e.g., between about 60 and 100 microns thick). Preferably, a vulnerable plaque comprises a macrophage and/or monocyte content that is greater than about 10%. More preferably, a. . .

CLM What is claimed is:
47. The method of claim 46, wherein the thin fibrous cap is greater than about 200 microns thick.

CLM What is claimed is:
. . . method of claim 52, wherein the molecular carrier is selected from the group consisting of serum proteins, receptor ligands, microspheres, liposomes, antibodies, growth factors, peptides, hormones and lipoproteins.

CLM What is claimed is:
. . . 63. The method of claim 62, wherein the molecular carrier comprises a hydrophobic vehicles selected from the group consisting of liposomes, cremaphor EL, PEG/solvent mixtures, iodized castor oil, nanoparticles and micellar preparations.

CLM What is claimed is:
64. The method of claim 63, wherein the liposomes contain cholesterol.

CLM What is claimed is:
66. The method of claim 64, wherein the liposomes contain cardiolipin.

CLM What is claimed is:
76. The method of claim 75, wherein the thin fibrous cap is less than about 150 microns thick.

CLM What is claimed is:
77. The method of claim 76, wherein the thin fibrous cap is less than about 100 microns thick.

CLM What is claimed is:
. . . method of claim 86, wherein the molecular carrier is selected from the group consisting of serum proteins, receptor ligands, microspheres, liposomes, antibodies, growth factors, peptides, hormones and lipoproteins.

CLM What is claimed is:
. . . 98. The method of claim 97, wherein the molecular carrier comprises a hydrophobic vehicles selected from the group consisting of liposomes, cremaphor EL, PEG/solvent mixtures, iodized castor oil, nanoparticles and micellar preparations.

CLM What is claimed is:
99. The method of claim 98, wherein the liposomes contain cholesterol.

CLM What is claimed is:
100. The method of claim 99, wherein the liposomes contain cardiolipin.

IT 57-88-5, Cholesterol, biological studies
(liposomes containing, as carrier for β-emitting agent, targeting lipids of plaque; methods and devices for detection and therapy of atheromatous plaque)

L22 ANSWER 12 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2003:86331 USPATFULL
TITLE: Antibodies that immunospecifically bind BLyS

INVENTOR(S): Ruben, Steven M., Olney, MD, UNITED STATES
Barash, Steven C., Rockville, MD, UNITED STATES
Choi, Gil H., Rockville, MD, UNITED STATES
Vaughan, Tristan, Great Shelford, UNITED KINGDOM
Hilbert, David, Bethesda, MD, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030059937	A1	20030327	<--
	US 7138501	B2	20061121	
APPLICATION INFO.:	US 2001-880748	A1	20010615 (9)	

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-212210P	20000616 (60)
	US 2000-240816P	20001017 (60)
	US 2001-276248P	20010316 (60)
	US 2001-277379P	20010321 (60)
	US 2001-293499P	20010525 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 96
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 16 Drawing Page(s)
LINE COUNT: 17997
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . invention may be the result of hydrophobic, hydrophilic, ionic and/or covalent associations and/or may be indirectly linked, by for example, liposome formation. Thus, in one embodiment, BLyS multimers, such as, for example, homodimers or homotrimers, are formed when polypeptides of the. . .

DETD . . . (TAXOL", Bristol-Myers Squibb Oncology, Princeton, N.J.) doxetaxel (TAXOTERE", Rh6ne-Poulenc Rorer, Antony, France), gemcitabine, ifosfamide, vinorelbine, navelbine, novantrone, teniposide, aminopterin, xeloda, ibandronate, CPT-I1, topoisomerase inhibitor RFS 2000, difluoromethylornithine (DMFO), retinoic acid, esperamicins, capecitabine, and pharmaceutically acceptable salts, acids or derivatives of any. . .

DETD . . . prognose thrombotic related events including, but not limited to, stroke (and recurrent stroke), heart attack, deep vein thrombosis, pulmonary embolism, myocardial infarction, coronary artery disease (e.g., antibody-mediated coronary artery disease), thrombosis, graft reocclusion following cardiovascular surgery (e.g., coronary arterial bypass grafts, recurrent. . .

DETD . . . Amyotrophic lateral sclerosis, Retinitis pigmentosa, Cerebellar degeneration), myelodysplastic syndromes (such as aplastic anemia), ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), toxin-induced liver disease (such as that caused by alcohol), septic shock, cachexia and anorexia. In another. . .

DETD . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

DETD . . . are known and can be used to administer antibody or fragment or variant thereof of the invention, e.g., encapsulation in

liposomes, microparticles, microcapsules, recombinant cells capable of expressing the antibody or antibody fragment, receptor-mediated endocytosis (see, e.g., Wu and Wu, J.. . .

DETD [0529] In another embodiment, the composition can be delivered in a vesicle, in particular a liposome (see Langer, Science 249:1527-1533 (1990); Treat et al, in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 353-365 (1989); Lopez-Berestein, ibid.,. . .

DETD . . . FBS containing 100 U/ml penicillin, 100 μg/ml streptomycin, 4 mM glutamine, 5+10.sup.-5M P-mercaptoethanol). The cells were passed through a 100 micron nylon filter to remove cell clumps. The cell suspension was then ficolled at 400+g for 25 minutes at room temperature. . .

L22 ANSWER 13 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2003:86257 USPATFULL
TITLE: Antibodies against tumor necrosis factor delta (APRIL)
INVENTOR(S): Ruben, Steven M., Brookeville, MD, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030059862	A1	20030327	<--
	US 7189820	B2	20070313	
APPLICATION INFO.:	US 2002-151882	A1	20020522	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-293100P	20010524 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 61
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 8330
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . invention may be the result of hydrophobic, hydrophilic, ionic and/or covalent associations and/or may be indirectly linked, by for example, liposome formation. Thus, in one embodiment, APRIL multimers, such as, for example, homodimers or homotrimers, are formed when polypeptides of the. . .

DETD . . . (TAXOL", Bristol-Myers Squibb Oncology, Princeton, N.J.) doxetaxel (TAXOTERE", Rh6ne-Poulenc Rorer, Antony, France), gemcitabine, ifosfamide, vinorelbine, navelbine, novantrone, teniposide, aminopterin, xeloda, ibandronate, CPT-I 1, topoisomerase inhibitor RFS 2000, difluoromethylornithine (DMFO), retinoic acid, esperamicins, capecitabine, and pharmaceutically acceptable salts, acids or derivatives of. . .

DETD . . . ameliorate thrombotic related events including, but not limited to, stroke (and recurrent stroke), heart attack, deep vein thrombosis, pulmonary embolism, myocardial infarction, coronary artery disease (e.g., antibody -mediated coronary artery disease), thrombosis, graft reocclusion following cardiovascular surgery (e.g., coronary arterial bypass grafts,. . .

DETD . . . disease, Amyotrophic lateral sclerosis, Retinitis pigmentosa, Cerebellar degeneration), myelodysplastic-syndromes (such as aplastic anemia), ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), toxin-induced liver

disease (such as that caused by alcohol), septic shock, cachexia and anorexia. In another. . .

DETD . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

DETD . . . are known and can be used to administer antibody or fragment or variant thereof of the invention, e.g., encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the antibody or antibody fragment, receptor-mediated endocytosis (see, e.g., Wu and Wu, J.. . .

DETD [0381] In another embodiment, the composition can be delivered in a vesicle, in particular a liposome (see Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 353-365 (1989); Lopez-Berestein, ibid.,. . .

DETD . . . FBS containing 100 U/ml penicillin, 100 μg/ml streptomycin, 4 mM glutamine, 5+10.sup.-5M β-mercaptoethanol). The cells are passed through a 100 micron nylon filter to remove cell clumps. The cell suspension is then ficolled at 400+ g for 25 minutes at room. . .

L22 ANSWER 14 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2003:79378 USPATFULL		
TITLE:	Devices for detection and therapy of atheromatous plaque		
INVENTOR(S):	Elmaleh, David, Boston, MA, UNITED STATES Daghighian, Farhad, Los Angeles, CA, UNITED STATES		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20030055307	A1	20030320 <--
APPLICATION INFO.:	US 2002-215600	A1	20020809 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-215958, filed on 9 Aug 2002, PENDING Continuation-in-part of Ser. No. US 2002-163744, filed on 4 Jun 2002, PENDING		
	NUMBER	DATE	
PRIORITY INFORMATION:	US 2001-295627P	20010604 (60)	
	US 2002-365673P	20020315 (60)	
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	FROMMER LAWRENCE & HAUG, 745 FIFTH AVENUE- 10TH FL., NEW YORK, NY, 10151		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	26 Drawing Page(s)		
LINE COUNT:	3206		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

RLI Division of Ser. No. US 2002-215958, filed on 9 Aug 2002, PENDING Continuation-in-part of Ser. No. US 2002-163744, filed on 4 Jun 2002, PENDING

SUMM . . . of plaque and are unrelated to plaque disruption. Unlike the rupture of less-stenotic lipid-rich plaques, leading to occlusion and subsequent infarction or other acute coronary syndromes, this

process of occlusion from late stenotic plaques tends to be silent because the preceding. . .

SUMM . . . one year after the initial procedure. Acute coronary syndrome covers a group of sudden-onset coronary diseases, including unstable angina, acute myocardial infarction and sudden cardiac death. The causative agent of acute coronary syndrome is fissure, erosion or rupture of a specific kind. . .

DETD [0060] An "inactive or stable atheromatous plaque" comprises a thick fibrous cap, preferably greater than 200 microns thick, a small lipid pool or the absence thereof, which is only slowly accumulating lipids, if at all, and less. . .

DETD . . . pool, and a thin fibrous cap. Preferably, a vulnerable plaque comprises a fibrous cap that is less than about 150 microns thick. More preferably, a vulnerable plaque comprises a fibrous cap that is less than about 100 microns thick (e.g., between about 60 and 100 microns thick). Preferably, a vulnerable plaque comprises a macrophage and/or monocyte content that is greater than about 10%. More preferably, a. . .

DETD . . . atheromatous plaque and/or vulnerable plaque, for example, treatment by statins (e.g., atorvastatin, or pravastatin), cholesterol lowering drugs, aspirin, anti-inflammatory agents, bisphosphonates, eicosapentaenoic acid, docosahexaenoic acid, ACE inhibitors (e.g., ramipril), biomolecules (e.g., thrombin-activatable fibrinolysis inhibitor, Angptl3, or Apo-A1 mimetic peptide,) clot-reducing agents. . .

DETD . . . 26:147-157; Hamblin and Newman (1994) J. Photochem. Photobiol. 26:45-56), microspheres (Bachor et al. (1991) Proc. Natl. Acad. Sci. U.S.A. 88:1580-1584), liposomes (Polo et al. (1996) Cancer Lett. 109:57-61), polymers (Hamblin et al. (1999) Br. J. Cancer 81:261-268), monoclonal antibodies (Hamblin et. . .

DETD . . . lipid pool of the atheroma, including but not limited to hydrophobic photosensitizers or photosensitizers delivered in hydrophobic vehicles such as liposomes (with positive, neutral or negatively charged and optionally containing cholesterol or cardiolipin) cremaphor EL, PEG/solvent mixtures, iodized castor oil, and. . .

DETD [0175] An "inactive or stable atheromatous plaque" comprises a thick fibrous cap, preferably greater than 200 microns thick, a small lipid pool or the absence thereof, which is only slowly accumulating lipids, if at all, and less. . .

DETD . . . pool, and a thin fibrous cap. Preferably, a vulnerable plaque comprises a fibrous cap that is less than about 150 microns thick. More preferably, a vulnerable plaque comprises a fibrous cap that is less than about 100 microns thick (e.g., between about 60 and 100 microns thick). Preferably, a vulnerable plaque comprises a macrophage and/or monocyte content that is greater than about 10%. More preferably, a. . .

IT 57-88-5, Cholesterol, biological studies
(liposomes containing, as carrier for β-emitting agent, targeting lipids of plaque; methods and devices for detection and therapy of atheromatous plaque)

L22 ANSWER 15 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2002:266261 USPATFULL
TITLE: Nucleic acids, proteins, and antibodies
INVENTOR(S): Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES
Barash, Steven C., Rockville, MD, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION:	US 20020147140	A1	20021010	<--
APPLICATION INFO.:	US 2001-764877	A1	20010117	(9)

PRIORITY INFORMATION:	NUMBER	DATE
	US 2000-179065P	20000131 (60)
	US 2000-180628P	20000204 (60)
	US 2000-214886P	20000628 (60)
	US 2000-217487P	20000711 (60)
	US 2000-225758P	20000814 (60)
	US 2000-220963P	20000726 (60)
	US 2000-217496P	20000711 (60)
	US 2000-225447P	20000814 (60)
	US 2000-218290P	20000714 (60)
	US 2000-225757P	20000814 (60)
	US 2000-226868P	20000822 (60)
	US 2000-216647P	20000707 (60)
	US 2000-225267P	20000814 (60)
	US 2000-216880P	20000707 (60)
	US 2000-225270P	20000814 (60)
	US 2000-251869P	20001208 (60)
	US 2000-235834P	20000927 (60)
	US 2000-234274P	20000921 (60)
	US 2000-234223P	20000921 (60)
	US 2000-228924P	20000830 (60)
	US 2000-224518P	20000814 (60)
	US 2000-236369P	20000929 (60)
	US 2000-224519P	20000814 (60)
	US 2000-220964P	20000726 (60)
	US 2000-241809P	20001020 (60)
	US 2000-249299P	20001117 (60)
	US 2000-236327P	20000929 (60)
	US 2000-241785P	20001020 (60)
	US 2000-244617P	20001101 (60)
	US 2000-225268P	20000814 (60)
	US 2000-236368P	20000929 (60)
	US 2000-251856P	20001208 (60)
	US 2000-251868P	20001208 (60)
	US 2000-229344P	20000901 (60)
	US 2000-234997P	20000925 (60)
	US 2000-229343P	20000901 (60)
	US 2000-229345P	20000901 (60)
	US 2000-229287P	20000901 (60)
	US 2000-229513P	20000905 (60)
	US 2000-231413P	20000908 (60)
	US 2000-229509P	20000905 (60)
	US 2000-236367P	20000929 (60)
	US 2000-237039P	20001002 (60)
	US 2000-237038P	20001002 (60)
	US 2000-236370P	20000929 (60)
	US 2000-236802P	20001002 (60)
	US 2000-237037P	20001002 (60)
	US 2000-237040P	20001002 (60)
	US 2000-240960P	20001020 (60)
	US 2000-239935P	20001013 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850

NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
LINE COUNT: 33677
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . obvious reason, have weak bones. Treatment for all forms of osteoporosis is aimed at increasing bone density (e.g., estrogen intake, bisphosphonates, fluoride supplements).

SUMM . . . invention may be the result of hydrophobic, hydrophilic, ionic and/or covalent associations and/or may be indirectly linked by, for example, liposome formation. Thus, in one embodiment, multimers of the invention, such as, for example, homodimers or homotrimers, are formed when polypeptides. . .

SUMM . . . which is herein incorporated by reference in its entirety). Additionally, techniques known in the art may be applied to generate liposomes containing the polypeptide components desired to be contained in the multimer of the invention (see, e.g., U.S. Pat. No. 5,478,925,. . .

SUMM . . . which contain a transmembrane domain (or hydrophobic or signal peptide) and which can be incorporated by membrane reconstitution techniques into liposomes (see, e.g., U.S. Pat. No. 5,478,925, which is herein incorporated by reference in its entirety).

SUMM . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

SUMM [0341] Various delivery systems are known and can be used to administer a compound of the invention, e.g., encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the compound, receptor-mediated endocytosis (see, e.g., Wu and Wu, J. Biol. Chem. 262:4429-4432. . .

SUMM [0343] In another embodiment, the compound or composition can be delivered in a vesicle, in particular a liposome (see Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 353-365 (1989); Lopez-Berestein, ibid.,. . .

SUMM . . . from any delivery vehicle that acts to assist, promote or facilitate entry into the cell, including viral sequences, viral particles, liposome formulations, lipofectin or precipitating agents and the like. However, the polynucleotide of the present invention can also be delivered in liposome formulations and lipofectin formulations and the like can be prepared by methods well known to those skilled in the art.. . .

SUMM [0469] The constructs may also be delivered with delivery vehicles such as viral sequences, viral particles, liposome formulations, lipofectin, precipitating agents, etc. Such methods of delivery are known in the art.

SUMM [0470] In certain embodiments, the polynucleotide constructs are complexed in a liposome preparation. Liposomal preparations for use in the instant invention include cationic (positively charged), anionic (negatively charged) and neutral preparations. However, cationic liposomes are particularly preferred because a tight charge complex can be formed between the cationic liposome and the polyanionic nucleic acid. Cationic liposomes have been shown to mediate intracellular delivery of plasmid DNA (Felgner et al., Proc. Natl. Acad. Sci. USA (1987) 84:7413-7416,. . .

SUMM [0471] Cationic liposomes are readily available. For example, N[1-2,3-dioleyloxy)propyl]-N,N,N-triethylammonium (DOTMA)

liposomes are particularly useful and are available under the trademark Lipofectin, from GIBCO BRL, Grand Island, N.Y., (see, also, Felgner et al., Proc. Natl Acad. Sci. USA (1987) 84:7413-7416, which is herein incorporated by reference). Other commercially available liposomes include transfectace (DDAB/DOPE) and DOTAP/DOPE (Boehringer).

SUMM [0472] Other cationic liposomes can be prepared from readily available materials using techniques well known in the art. See, e.g. PCT Publication No. WO 90/11092 (which is herein incorporated by reference) for a description of the synthesis of DOTAP (1,2-bis(oleoyloxy)-3-(trimethylammonio)propane) liposomes. Preparation of DOTMA liposomes is explained in the literature, see, e.g., P. Felgner et al., Proc. Natl. Acad. Sci. USA 84:7413-7417, which is herein incorporated by reference. Similar methods can be used to prepare liposomes from other cationic lipid materials.

SUMM [0473] Similarly, anionic and neutral liposomes are readily available, such as from Avanti Polar Lipids (Birmingham, Ala.), or can be easily prepared using readily available materials.. . . others. These materials can also be mixed with the DOTMA and DOTAP starting materials in appropriate ratios. Methods for making liposomes using these materials are well known in the art.

SUMM . . . commercially dioleoylphosphatidyl choline (DOPC), dioleoylphosphatidyl glycerol (DOPG), and dioleoylphosphatidyl ethanolamine (DOPE) can be used in various combinations to make conventional liposomes, with or without the addition of cholesterol. Thus, for example, DOPG/DOPC vesicles can be prepared by drying 50 mg each. . .

SUMM [0475] The liposomes can comprise multilamellar vesicles (MLVs), small unilamellar vesicles (SUVs), or large unilamellar vesicles (LUVs), with SUVs being preferred. The various liposome -nucleic acid complexes are prepared using methods well known in the art. See, e.g., Straubinger et al., Methods of Immunology (1983),. . . the material to be encapsulated. SUVs are prepared by extended sonication of MLVs to produce a homogeneous population of unilamellar liposomes. The material to be entrapped is added to a suspension of preformed MLVs and then sonicated. When using liposomes containing cationic lipids, the dried lipid film is resuspended in an appropriate solution such as sterile water or an isotonic buffer solution such as 10 mM Tris/NaCl, sonicated, and then the preformed liposomes are mixed directly with the DNA. The liposome and DNA form a very stable complex due to binding of the positively charged liposomes to the cationic DNA. SUVs find use with small nucleic acid fragments. LUVs are prepared by a number of methods,. . .

SUMM [0476] Generally, the ratio of DNA to liposomes will be from about 10:1 to about 1:10. Preferably, the ration will be from about 5:1 to about 1:5. More. . .

SUMM . . . U.S. Pat. No. 5,676,954 (which is herein incorporated by reference) reports on the injection of genetic material, complexed with cationic liposomes carriers, into mice. U.S. Pat. Nos. 4,897,355, 4,946,787, 5,049,386, 5,459,127, 5,589,466, 5,693,622, 5,580,859, 5,703,055, and international publication no. WO 94/9469. . .

SUMM . . . cells through any means known in the art. Such means include, but are not limited to, electroporation, the use of liposomes, and CaPO.sub.4 precipitation. In one alternative, the retroviral plasmid vector may be encapsulated into a liposome, or coupled to a lipid, and then administered to a host.

SUMM . . . promoter-targeting sequence construct is delivered to the cells, either as naked polynucleotide, or in conjunction with

transfection-facilitating agents, such as liposomes, viral sequences, viral particles, whole viruses, lipofection, precipitating agents, etc., described in more detail above. The P promoter-targeting sequence can. . .

SUMM . . . invention complexed to a targeted delivery vehicle of the present invention. Suitable delivery vehicles for use with systemic administration comprise liposomes comprising ligands for targeting the vehicle to a particular site. In specific embodiments, suitable delivery vehicles for use with systemic administration comprise liposomes comprising polypeptides of the invention for targeting the vehicle to a particular site.

SUMM . . . be used to inhibit or dissolve clotting. These molecules could be important in the treatment or prevention of heart attacks (infarction), strokes, or scarring.

SUMM . . . present invention may be used to prevent, diagnose, prognose, and/or treat thrombosis, arterial thrombosis, venous thrombosis, thromboembolism, pulmonary embolism, atherosclerosis, myocardial infarction, transient ischemic attack, unstable angina. In specific embodiments, the polynucleotides, polypeptides, antibodies, and/or agonists or antagonists of the present invention. . .

SUMM . . . and rheumatoid arthritis) myelodysplastic syndromes (such as aplastic anemia), graft v. host disease, ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), liver injury (e.g., hepatitis related liver injury, ischemia/reperfusion injury, cholestosis (bile duct injury) and liver cancer);. . .

SUMM . . . of skill in the art including, but not limited to transfection, electroporation, microinjection of cells, or in vehicles such as liposomes, lipofectin, or as naked polynucleotides, or any other method described throughout the specification. The polynucleotide of the present invention may. . .

SUMM [0662] Blood vessel disorders of the kidneys include, but are not limited to, kidney infarction, atheroembolic kidney disease, cortical necrosis, malignant nephrosclerosis, renal vein thrombosis, renal underperfusion, renal ischemia-reperfusion, renal artery embolism, and renal artery. . .

SUMM . . . death, congestive heart failure, congestive cardiomyopathy, paroxysmal dyspnea, cardiac edema, heart hypertrophy, congestive cardiomyopathy, left ventricular hypertrophy, right ventricular hypertrophy, post-infarction heart rupture, ventricular septal rupture, heart valve diseases, myocardial diseases, myocardial ischemia, pericardial effusion, pericarditis (including constrictive and tuberculous), pneumopericardium,. . .

SUMM . . . ischemias include coronary disease, such as angina pectoris, Prinzmetal's angina, unstable angina, coronary aneurysm, coronary arteriosclerosis, coronary thrombosis, coronary vasospasm, myocardial infarction and myocardial stunning.

SUMM . . . cerebral embolism and thrombosis, carotid artery thrombosis, sinus thrombosis, Wallenberg's syndrome, cerebral hemorrhage, epidural hematoma, subdural hematoma, subaraxhnoid hemorrhage, cerebral infarction, cerebral ischemia (including transient), subclavian steal syndrome, periventricular leukomalacia, vascular headache, cluster headache, migraine, and vertebrobasilar insufficiency.

SUMM . . . which a lack of oxygen in a portion of the nervous system results in neuronal injury or death, including cerebral infarction or ischemia, or spinal cord infarction or ischemia; (2) traumatic lesions, including lesions caused by physical injury or associated with surgery, for example, lesions which sever. . .

SUMM . . . polynucleotides, or agonists or antagonists of the invention

are used to treat or prevent neural cell injury associated with cerebral infarction.

SUMM . . . motor neuron disorders that may be treated according to the invention include, but are not limited to, disorders such as infarction, infection, exposure to toxin, trauma, surgical damage, degenerative disease or malignancy that may affect motor neurons as well as other. . .

SUMM . . . (e.g., carotid artery thrombosis, sinus thrombosis, or Wallenberg's Syndrome), cerebral hemorrhage (e.g., epidural or subdural hematoma, or subarachnoid hemorrhage), cerebral infarction, cerebral ischemia (e.g., transient cerebral ischemia, Subclavian Steal Syndrome, or vertebrobasilar insufficiency), vascular dementia (e.g., multi-infarct), leukomalacia, periventricular, and vascular headache (e.g., cluster headache or migraines).

SUMM . . . carotid artery thrombosis, sinus thrombosis and Wallenberg's Syndrome, cerebral hemorrhage such as epidural hematoma, subdural hematoma and subarachnoid hemorrhage, cerebral infarction, cerebral ischemia such as transient cerebral ischemia, Subclavian Steal Syndrome and vertebrobasilar insufficiency, vascular dementia such as multi-infarct dementia, periventricular leukomalacia, vascular headache such as cluster headache and migraine.

SUMM . . . as Alzheimer's Disease and Creutzfeldt-Jakob Syndrome, senile dementia such as Alzheimer's Disease and progressive supranuclear palsy, vascular dementia such as multi-infarct dementia, encephalitis which include encephalitis periaxialis, viral encephalitis such as epidemic encephalitis, Japanese Encephalitis, St. Louis Encephalitis, tick-borne encephalitis and. . .

SUMM . . . and rheumatoid arthritis) myelodysplastic syndromes (such as aplastic anemia), graft v. host disease, ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), liver injury (e.g., hepatitis related liver injury, ischemia/reperfusion injury, cholestosis (bile duct injury) and liver cancer);. . .

DETD . . . Sustained-release Therapeutics also include liposomally entrapped Therapeutics of the invention (see generally, Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 317-327 and 353-365 (1989)). Liposomes containing the Therapeutic are prepared by methods known per se: DE 3,218,121; Epstein et al., Proc. Natl. Acad. Sci. (USA). . . 88,046; EP 143,949; EP 142,641; Japanese Pat. Appl. 83-118008; U.S. Pat. Nos. 4,485,045 and 4,544,545; and EP 102,324. Ordinarily, the liposomes are of the small (about 200-800 Angstroms) unilamellar type in which the lipid content is greater than about 30 mol.. . .

DETD . . . solution, and dextrose solution. Non-aqueous vehicles such as fixed oils and ethyl oleate are also useful herein, as well as liposomes.

DETD . . . pharmaceutical used for therapeutic administration can be sterile. Sterility is readily accomplished by filtration through sterile filtration membranes (e.g., 0.2 micron membranes). Therapeutics generally are placed into a container having a sterile access port, for example, an intravenous solution bag or. . .

DETD . . . (ethinyl estradiol/ethynodiol diacetate), NORINYL.TM., ORTHO-NOVUM.TM., NORETHIN.TM., GENORA.TM., and NELOVA.TM. (norethindrone/mestranol), DESOGEN.TM. and ORTHO-CEPT.TM. (ethinyl estradiol/desogestrel), ORTHO-CYCLEN.TM. and ORTHO-TRICYCLEN.TM. (ethinyl estradiol/norgestimate), MICRONOR.TM. and NOR-QD.TM. (norethindrone), and OVRETTE.TM. (norgestrel); testosterone esters such as methenolone acetate and testosterone undecanoate; parenteral and oral

androgens such. . . and NOVOLIN.TM.; oral hypoglycemic agents such as ORAMIDE.TM. and ORINASE.TM. (tolbutamide), DIABINESE.TM. (chlorpropamide), TOLAMIDE.TM. and TOLINASE.TM. (tolazamide), DYMELOR.TM. (acetohexamide), glibenclamide, MICRONASE.TM., DIBETA.TM. and GLYNASE.TM. (glyburide), GLUCOTROL.TM. (glipizide), and DIAMICRON.TM. (gliclazide), GLUCOPHAGE.TM. (metformin), ciglitazone, pioglitazone, and alpha-glucosidase inhibitors; bovine or porcine glucagon;. . .

DETD . . . as conjugated estrogens (e.g., PREMARIN® and ESTRATAB®), estradiols (e.g., CLIMARA® and ALORA®), estropipate, and chlorotrianisene; progestin drugs (e.g., AMEN® (medroxyprogesterone), MICRONOR® (norethidrone acetate), PROMETRIUM® progesterone, and megestrol acetate); and estrogen/progesterone combination therapies such as, for example, conjugated estrogens/medroxyprogesterone (e.g., PREMPRO® and. . .

DETD . . . are administered as naked polynucleotides via electroporation. However, the polynucleotide constructs may also be administered with transfection-facilitating agents, such as liposomes, viral sequences, viral particles, precipitating agents, etc. Such methods of delivery are known in the art.

DETD . . . from any delivery vehicle that acts to assist, promote, or facilitate entry into the cell, including viral sequences, viral particles, liposome formulations, lipofectin or precipitating agents and the like. However, the polynucleotides of the present invention may also be delivered in liposome formulations (such as those taught in Felgner P.L. et al. (1995) Ann. NY Acad. Sci. 772:126-139 and Abdallah B. et. . .

DETD . . . methodology. The template DNA, which may be either circular or linear, is either used as naked DNA or complexed with liposomes . The quadriceps muscles of mice are then injected with various amounts of the template DNA.

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the polypeptides of the invention can be placed under the control of a strong constitutive. . .

L22 ANSWER 16 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2002:213736 USPATFULL
TITLE:	Neutrokine-alpha and Neutrokine-alpha splice variant
INVENTOR(S):	Yu, Guo-Liang, Berkeley, CA, UNITED STATES Ebner, Reinhard, Gaithersburg, MD, UNITED STATES Ni, Jian, Germantown, MD, UNITED STATES Rosen, Craig A., Laytonsville, MD, UNITED STATES Ullrich, Stephen, Rockville, MD, UNITED STATES
PATENT ASSIGNEE(S):	Human Genome Sciences, Inc., Rockville, MD, UNITED STATES, 20850 (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20020115112	A1	20020822	<--
APPLICATION INFO.:	US 2001-929493	A1	20010815 (9)	

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-588947, filed on 8 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-589285, filed on 8 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-589286, filed on 8 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-589287, filed on 8 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-586288, filed on 2 Jun 2000, PATENTED Continuation-in-part of Ser.

No. US 2000-507968, filed on 22 Feb 2000, PENDING Continuation-in-part of Ser. No. US 1999-255794, filed on 23 Feb 1999, PENDING Continuation-in-part of Ser. No. US 1999-255794, filed on 23 Feb 1999, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-225628P	20000815 (60)
	US 2000-227008P	20000823 (60)
	US 2000-234338P	20000922 (60)
	US 2000-240806P	20001017 (60)
	US 2000-250020P	20001130 (60)
	US 2001-276248P	20010316 (60)
	US 2001-293499P	20010525 (60)
	US 2001-296122P	20010607 (60)
	US 2001-304809P	20010713 (60)
	US 1999-122388P	19990302 (60)
	US 1999-124097P	19990312 (60)
	US 1999-126599P	19990326 (60)
	US 1999-127598P	19990402 (60)
	US 1999-130412P	19990416 (60)
	US 1999-130696P	19990423 (60)
	US 1999-131278P	19990427 (60)
	US 1999-131673P	19990429 (60)
	US 1999-136784P	19990528 (60)
	US 1999-142659P	19990706 (60)
	US 1999-145824P	19990727 (60)
	US 1999-167239P	19991124 (60)
	US 1999-168624P	19991203 (60)
	US 1999-171108P	19991216 (60)
	US 1999-171626P	19991223 (60)
	US 2000-176015P	20000114 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 117
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 22 Drawing Page(s)
LINE COUNT: 18178
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . invention may be the result of hydrophobic, hydrophilic, ionic and/or covalent associations and/or may be indirectly linked, by for example, liposome formation. Thus, in one embodiment, multimers of the invention, such as, for example, homodimers or homotrimers, are formed when polypeptides. . .

DETD . . . which is herein incorporated by reference in its entirety). Additionally, techniques known in the art may be applied to generate liposomes containing the polypeptide components desired to be contained in the multimer of the invention (see, e.g., U.S. Pat. No. 5,478,925,. . .

DETD . . . recombinant polypeptides of the invention which contain a transmembrane domain and which can be incorporated by membrane reconstitution techniques into liposomes (see, e.g., U.S. Pat. No. 5,478,925, which is herein incorporated by reference in its entirety).

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the

polypeptides of the invention can be placed under the control of a strong constitutive. . .

DETD . . . (TAXOL", Bristol-Myers Squibb Oncology, Princeton, N.J.) doxetaxel (TAXOTERE", Rh6ne-Poulenc Rorer, Antony, France), gemcitabine, ifosfamide, vinorelbine, navelbine, novantrone, teniposide, aminopterin, xeloda, ibandronate, CPT-I 1, topoisomerase inhibitor RFS 2000, difluoromethylomithine (DMFO), retinoic acid, esperamicins, capecitabine, and pharmaceutically acceptable salts, acids or derivatives of. . .

DETD . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

DETD [0487] Various delivery systems are known and can be used to administer a compound of the invention, e.g., encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the compound, receptor-mediated endocytosis (see, e.g., Wu and Wu, J. Biol. Chem. 262:4429-4432. . .

DETD [0489] In another embodiment, the compound or composition can be delivered in a vesicle, in particular a liposome (see Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 353-365 (1989); Lopez-Berestein, ibid.,. . .

DETD . . . diagnose, thrombotic related events including, but not limited to, stroke (and recurrent stroke), heart attack, deep vein thrombosis, pulmonary embolism, myocardial infarction, coronary artery disease (e.g,. antibody-mediated coronary artery disease), thrombosis, graft reocclusion following cardiovascular surgery (e.g,. coronary arterial bypass grafts, recurrent. . .

DETD . . . Amyotrophic lateral sclerosis, Retinitis pigmentosa, Cerebellar degeneration); myelodysplastic syndromes (such as aplastic anemia), ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), toxin-induced liver disease (such as that caused by alcohol), septic shock, cachexia and anorexia. Thus, in. . .

DETD . . . infection, nephritis, bone disease (e.g., osteoporosis), atherosclerosis, pain, cardiovascular disorders (e.g., neovascularization, hypovascularization or reduced circulation (e.g., ischemic disease (e.g., myocardial infarction, stroke, etc.)), AIDS, allergy, inflammation, neurodegenerative disease (e.g., Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, pigmentary retinitis, cerebellar degeneration, etc.),. . .

DETD . . . Sustained-release compositions also include liposomally entrapped compositions of the invention (see generally, Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 317-327 and 353-365 (1989)). Liposomes containing Neutrokine-alpha and/or Neutrokine-alphaSV polypeptide my be prepared by methods known per se: DE 3,218,121; Epstein et al., Proc. Natl.. . . 88,046; EP 143,949; EP 142,641; Japanese Pat. Appl. 83-118008; U.S. Pat. Nos. 4,485,045 and 4,544,545; and EP 102,324. Ordinarily, the liposomes are of the small (about 200-800 Angstroms) unilamellar type in which the lipid content is greater than about 30 mol.. . .

DETD . . . solution, and dextrose solution. Non-aqueous vehicles such as fixed oils and ethyl oleate are also useful herein, as well as liposomes.

DETD . . . be used for therapeutic administration must be sterile.

Sterility is readily accomplished by filtration through sterile filtration membranes (e.g., 0.2 micron membranes). Therapeutic Neutrokine-alpha and/or Neutrokine-alphaSV polypeptide compositions generally are placed into a container having a sterile access port, for example,. . .

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the polypeptides of the invention can be placed under the control of a strong constitutive. . .

DETD . . . are administered as naked polynucleotides via electroporation. However, the polynucleotide constructs may also be administered with transfection-facilitating agents, such as liposomes, viral sequences, viral particles, precipitating agents, etc. Such methods of delivery are known in the art.

L22 ANSWER 17 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2002:126332 USPATFULL		
TITLE:	Human protein tyrosine phosphatase polynucleotides, polypeptides, and antibodies		
INVENTOR(S):	Shi, Yanggu, Gaithersburg, MD, UNITED STATES Ruben, Steven M., Olney, MD, UNITED STATES		

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20020064844	A1	20020530	<--
	US 6770466	B2	20040803	
APPLICATION INFO.:	US 2001-906779	A1	20010718 (9)	
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 2001-US1563, filed on 17 Jan 2001, UNKNOWN			

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-176306P	20000118 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS:	22
EXEMPLARY CLAIM:	1
LINE COUNT:	12129

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . a wide range of biological activities. Schmidt et al. found a murine PTPase expressed by osteoclasts that, upon inhibition by Alendronate (ALN), inhibited in vitro osteoclast formation and bone resorption (Schmidt, A., et al., Proc. Nat. Acad. Sci. USA, 93:3068-73 (1996)).. . .

SUMM . . . invention may be the result of hydrophobic, hydrophilic, ionic and/or covalent associations and/or may be indirectly linked, by for example, liposome formation. Thus, in one embodiment, multimers of the invention, such as, for example, homodimers or homotrimers, are formed when polypeptides. . .

SUMM . . . which is herein incorporated by reference in its entirety). Additionally, techniques known in the art may be applied to generate liposomes containing the polypeptide components desired to be contained in the multimer of the invention (see, e.g., U.S. Pat. No. 5,478,925,. . .

SUMM . . . which contain a transmembrane domain (or hyrophobic or signal peptide) and which can be incorporated by membrane reconstitution

techniques into liposomes (see, e.g., U.S. Pat. No. 5,478,925, which is herein incorporated by reference in its entirety).

SUMM . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

SUMM [0269] Various delivery systems are known and can be used to administer a compound of the invention, e.g., encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the compound, receptor-mediated endocytosis (see, e.g., Wu and Wu, J. Biol. Chem. 262:4429-4432. . .

SUMM [0271] In another embodiment, the compound or composition can be delivered in a vesicle, in particular a liposome (see Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 353-365 (1989); Lopez-Berestein, ibid.,. . .

SUMM . . . from any delivery vehicle that acts to assist, promote or facilitate entry into the cell, including viral sequences, viral particles, liposome formulations, lipofectin or precipitating agents and the like. However, the polynucleotide of the present invention can also be delivered in liposome formulations and lipofectin formulations and the like can be prepared by methods well known to those skilled in the art.. . .

SUMM [0393] The constructs may also be delivered with delivery vehicles such as viral sequences, viral particles, liposome formulations, lipofectin, precipitating agents, etc. Such methods of delivery are known in the art.

SUMM [0394] In certain embodiments, the polynucleotide constructs are complexed in a liposome preparation. Liposomal preparations for use in the instant invention include cationic (positively charged), anionic (negatively charged) and neutral preparations. However, cationic liposomes are particularly preferred because a tight charge complex can be formed between the cationic liposome and the polyanionic nucleic acid. Cationic liposomes have been shown to mediate intracellular delivery of plasmid DNA (Felgner et al., Proc. Natl. Acad. Sci. USA (1987) 84:7413-7416,. . .

SUMM [0395] Cationic liposomes are readily available. For example, N[1-2,3-dioleyloxy)propyl]-N,N,N-triethylammonium (DOTMA) liposomes are particularly useful and are available under the trademark Lipofectin, from GIBCO BRL, Grand Island, N.Y. (See, also, Felgner et al., Proc. Natl Acad. Sci. USA (1987) 84:7413-7416, which is herein incorporated by reference). Other commercially available liposomes include transfectace (DDAB/DOPE) and DOTAP/DOPE (Boehringer).

SUMM [0396] Other cationic liposomes can be prepared from readily available materials using techniques well known in the art. See, e.g. PCT Publication No. WO 90/11092 (which is herein incorporated by reference) for a description of the synthesis of DOTAP (1,2-bis(oleoyloxy)-3-(trimethylammonio)propane) liposomes. Preparation of DOTMA liposomes is explained in the literature, see, e.g., P. Felgner et al., Proc. Natl. Acad. Sci. USA 84:7413-7417, which is herein incorporated by reference. Similar methods can be used to prepare liposomes from other cationic lipid materials.

SUMM [0397] Similarly, anionic and neutral liposomes are readily available, such as from Avanti Polar Lipids (Birmingham, Ala.), or can be easily prepared using readily available materials.. . . others. These materials can also be mixed with the DOTMA and DOTAP starting materials in appropriate ratios. Methods for making liposomes

using these materials are well known in the art.

SUMM . . . commercially dioleoylphosphatidyl choline (DOPC), dioleoylphosphatidyl glycerol (DOPG), and dioleoylphosphatidyl ethanolamine (DOPE) can be used in various combinations to make conventional liposomes, with or without the addition of cholesterol. Thus, for example, DOPG/DOPC vesicles can be prepared by drying 50 mg each. . .

SUMM [0399] The liposomes can comprise multilamellar vesicles (MLVs), small unilamellar vesicles (SUVs), or large unilamellar vesicles (LUVs), with SUVs being preferred. The various liposome -nucleic acid complexes are prepared using methods well known in the art. See, e.g., Straubinger et al., Methods of Immunology (1983),. . . the material to be encapsulated. SUVs are prepared by extended sonication of MLVs to produce a homogeneous population of unilamellar liposomes. The material to be entrapped is added to a suspension of preformed MLVs and then sonicated. When using liposomes containing cationic lipids, the dried lipid film is resuspended in an appropriate solution such as sterile water or an isotonic buffer solution such as 10 mM Tris/NaCl, sonicated, and then the preformed liposomes are mixed directly with the DNA. The liposome and DNA form a very stable complex due to binding of the positively charged liposomes to the cationic DNA. SUVs find use with small nucleic acid fragments. LUVs are prepared by a number of methods,. . .

SUMM [0400] Generally, the ratio of DNA to liposomes will be from about 10:1 to about 1:10. Preferably, the ration will be from about 5:1 to about 1:5. More. . .

SUMM . . . U.S. Pat. No. 5,676,954 (which is herein incorporated by reference) reports on the injection of genetic material, complexed with cationic liposomes carriers, into mice. U.S. Pat. Nos. 4,897,355, 4,946,787, 5,049,386, 5,459,127, 5,589,466, 5,693,622, 5,580,859, 5,703,055, and international publication no. WO 94/9469. . .

SUMM . . . cells through any means known in the art. Such means include, but are not limited to, electroporation, the use of liposomes, and CaPO.sub.4 precipitation. In one alternative, the retroviral plasmid vector may be encapsulated into a liposome, or coupled to a lipid, and then administered to a host.

SUMM . . . promoter-targeting sequence construct is delivered to the cells, either as naked polynucleotide, or in conjunction with transfection-facilitating agents, such as liposomes, viral sequences, viral particles, whole viruses, lipofection, precipitating agents, etc., described in more detail above. The P promoter-targeting sequence can. . .

SUMM . . . invention complexed to a targeted delivery vehicle of the present invention. Suitable delivery vehicles for use with systemic administration comprise liposomes comprising ligands for targeting the vehicle to a particular site.

SUMM . . . be used to inhibit or dissolve clotting. These molecules could be important in the treatment or prevention of heart attacks (infarction), strokes, or scarring.

SUMM . . . present invention may be used to prevent, diagnose, prognose, and/or treat thrombosis, arterial thrombosis, venous thrombosis, thromboembolism, pulmonary embolism, atherosclerosis, myocardial infarction, transient ischemic attack, unstable angina. In specific embodiments, the polynucleotides, polypeptides, antibodies, and/or agonists or antagonists of the present invention. . .

SUMM . . . and rheumatoid arthritis) myelodysplastic syndromes (such as aplastic anemia), graft v. host disease, ischemic injury (such as that caused by myocardial infarction, stroke and

reperfusion injury), liver injury (e.g., hepatitis related liver injury, ischemia/reperfusion injury, cholestosis (bile duct injury) and liver cancer);. . .

SUMM . . . of skill in the art including, but not limited to transfection, electroporation, microinjection of cells, or in vehicles such as liposomes, lipofectin, or as naked polynucleotides, or any other method described throughout the specification. The polynucleotide of the present invention may. . .

SUMM . . . glomerulonephritis (PSGN), pyelonephritis, lupus nephritis, chronic nephritis, interstitial nephritis, and post-streptococcal glomerulonephritis), blood vessel disorders of the kidneys (e.g., kidney infarction, atheroembolic kidney disease, cortical necrosis, malignant nephrosclerosis, renal vein thrombosis, renal underperfusion, renal retinopathy, renal ischemia-reperfusion, renal artery embolism, and. . .

SUMM . . . arrest, congestive heart failure, congestive cardiomyopathy, paroxysmal dyspnea, cardiac edema, heart hypertrophy, congestive cardiomyopathy, left ventricular hypertrophy, right ventricular hypertrophy, post-infarction heart rupture, ventricular septal rupture, heart valve diseases, myocardial diseases, myocardial ischemia, pericardial effusion, pericarditis (including constrictive and tuberculous), pneumopericardium,. . .

SUMM . . . include, but are not limited to, coronary disease, such as angina pectoris, coronary aneurysm, coronary arteriosclerosis, coronary thrombosis, coronary vasospasm, myocardial infarction and myocardial stunning.

SUMM . . . cerebral embolism and thrombosis, carotid artery thrombosis, sinus thrombosis, Wallenberg's syndrome, cerebral hemorrhage, epidural hematoma, subdural hematoma, subaraxhnoid hemorrhage, cerebral infarction, cerebral ischemia (including transient), subclavian steal syndrome, periventricular leukomalacia, vascular headache, cluster headache, migraine, and vertebrobasilar insufficiency.

SUMM . . . and rheumatoid arthritis) myelodysplastic syndromes (such as aplastic anemia), graft v. host disease, ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), liver injury (e.g., hepatitis related liver injury, ischemia/reperfusion injury, cholestosis (bile duct injury) and liver cancer);. . .

SUMM . . . which a lack of oxygen in a portion of the nervous system results in neuronal injury or death, including cerebral infarction or ischemia, or spinal cord infarction or ischemia; (2) traumatic lesions, including lesions caused by physical injury or associated with surgery, for example, lesions which sever. . .

SUMM . . . polynucleotides, or agonists or antagonists of the invention are used to treat or prevent neural cell injury associated with cerebral infarction.

SUMM . . . motor neuron disorders that may be treated according to the invention include, but are not limited to, disorders such as infarction, infection, exposure to toxin, trauma, surgical damage, degenerative disease or malignancy that may affect motor neurons as well as other. . .

SUMM . . . (e.g., carotid artery thrombosis, sinus thrombosis, or Wallenberg's Syndrome), cerebral hemorrhage (e.g., epidural or subdural hematoma, or subarachnoid hemorrhage), cerebral infarction, cerebral ischemia (e.g., transient cerebral ischemia, Subclavian Steal Syndrome, or vertebrobasilar insufficiency), vascular dementia (e.g., multi-infarct), leukomalacia, periventricular, and vascular headache (e.g., cluster headache or migraines).

SUMM . . . carotid artery thrombosis, sinus thrombosis and Wallenberg's

Syndrome, cerebral hemorrhage such as epidural hematoma, subdural hematoma and subarachnoid hemorrhage, cerebral infarction, cerebral ischemia such as transient cerebral ischemia, Subclavian Steal Syndrome and vertebrobasilar insufficiency, vascular dementia such as multi-infarct dementia, periventricular leukomalacia, vascular headache such as cluster headache and migraine.

SUMM . . . as Alzheimer's Disease and Creutzfeldt-Jakob Syndrome, senile dementia such as Alzheimer's Disease and progressive supranuclear palsy, vascular dementia such as multi-infarct dementia, encephalitis which include encephalitis periaxialis, viral encephalitis such as epidemic encephalitis, Japanese Encephalitis, St. Louis Encephalitis, tick-borne encephalitis and. . .

DETD [0899] Sustained-release compositions also include liposomally entrapped polypeptides. Liposomes containing the secreted polypeptide are prepared by methods known per se: DE 3,218,121; Epstein et al., Proc. Natl. Acad. Sci.. . . 88,046; EP 143,949; EP 142,641; Japanese Pat. Appl. 83-118008; U.S. Pat. Nos. 4,485,045 and 4,544,545; and EP 102,324. Ordinarily, the liposomes are of the small (about 200-800 Angstroms) unilamellar type in which the lipid content is greater than about 30 mol.. . .

DETD . . . solution, and dextrose solution. Non-aqueous vehicles such as fixed oils and ethyl oleate are also useful herein, as well as liposomes.

DETD . . . be used for therapeutic administration can be sterile. Sterility is readily accomplished by filtration through sterile filtration membranes (e.g., 0.2 micron membranes). Therapeutic polypeptide compositions generally are placed into a container having a sterile access port, for example, an intravenous solution. . .

DETD . . . the invention is contemplated for the prevention, diagnosis, and/or treatment of thrombosis, arterial thrombosis, venous thrombosis, thromboembolism, pulmonary embolism, atherosclerosis, myocardial infarction, transient ischemic attack, unstable angina. In specific embodiments, the use of anticoagulants, thrombolytic drugs and/or antiplatelet drugs in combination with. . .

DETD . . . (ethinyl estradiol/ethynodiol diacetate), NORINYL.TM., ORTHO-NOVUM.TM., NORETHIN.TM., GENORA.TM., and NELOVA.TM. (norethindrone/mestranol), DESOGEN.TM. and ORTHO-CEPT.TM. (ethinyl estradiol/desogestrel), ORTHO-CYCLEN.TM. and ORTHO-TRICYCLEN.TM. (ethinyl estradiol/norgestimate), MICRONOR.TM. and NOR-QD.TM. (norethindrone), and OVRETTE.TM. (norgestrel).

DETD . . . and NOVOLIN.TM.; oral hypoglycemic agents such as ORAMIDE.TM. and ORINASE.TM. (tolbutamide), DIABINESE.TM. (chlorpropamide), TOLAMIDE.TM. and TOLINASE.TM. (tolazamide), DYMELOR.TM. (acetohexamide), glibenclamide, MICRONASE.TM., DIBETA.TM. and GLYNASE.TM. (glyburide), GLUCOTROL.TM. (glipizide), and DIAMICRON.TM. (gliclazide), GLUCOPHAGE.TM. (metformin), PRECOSE.TM. (acarbose), AMARYL.TM. (glimepiride), and ciglitazone; thiazolidinediones (TZDs) such. . .

DETD . . . as conjugated estrogens (e.g., PREMARIN® and ESTRATAB®), estradiols (e.g., CLIMARA® and ALORA®), estropipate, and chlorotrianisene; progestin drugs (e.g., AMEN® (medroxyprogesterone), MICRONOR® (norethidrone acetate), PROMETRIUM® progesterone, and megestrol acetate); and estrogen/progesterone combination therapies such as, for example, conjugated estrogens/medroxyprogesterone (e.g., PREMPRO.TM. and. . .

DETD . . . are administered as naked polynucleotides via electroporation. However, the polynucleotide constructs may also be administered with transfection-facilitating agents, such as liposomes, viral sequences, viral particles, precipitating agents, etc. Such methods of delivery are known in the art.

DETD . . . from any delivery vehicle that acts to assist, promote, or

facilitate entry into the cell, including viral sequences, viral particles, liposome formulations, lipofectin or precipitating agents and the like. However, the PTPase polynucleotides may also be delivered in liposome formulations (such as those taught in Felgner et al., Ann. NY Acad. Sci., 772:126-139 (1995) and Abdallah et al., Biol.. . .

DETD . . . methodology. The template DNA, which may be either circular or linear, is either used as naked DNA or complexed with liposomes . The quadriceps muscles of mice are then injected with various amounts of the template DNA.

L22 ANSWER 18 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2002:126317 USPATFULL		
TITLE:	Human tumor necrosis factor delta and epsilon		
INVENTOR(S):	Yu, Guo-Liang, Berkeley, CA, UNITED STATES Ni, Jian, Germantown, MD, UNITED STATES Gentz, Reiner L., Rockville, MD, UNITED STATES Dillon, Patrick J., Carlsbad, CA, UNITED STATES		
PATENT ASSIGNEE(S):	Human Genome Sciences, Inc., Rockville, MD, UNITED STATES, 20850 (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20020064829	A1	20020530 <--
	US 6541224	B2	20030401
APPLICATION INFO.:	US 2001-879919	A1	20010614 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1997-815783, filed on 12 Mar 1997, PENDING		
	NUMBER	DATE	
PRIORITY INFORMATION:	US 1996-16812P	19960314 (60)	
	US 2001-293499P	20010525 (60)	
	US 2001-277978P	20010323 (60)	
	US 2001-276248P	20010316 (60)	
	US 2000-254875P	20001213 (60)	
	US 2000-241952P	20001023 (60)	
	US 2000-211537P	20000615 (60)	
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850		
NUMBER OF CLAIMS:	62		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Page(s)		
LINE COUNT:	13531		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . infection, nephritis, bone disease (e.g., osteoporosis), atherosclerosis, pain, cardiovascular disorders (e.g., neovascularization, hypovascularization or reduced circulation (e.g., ischemic disease (e.g., myocardial infarction, stroke, etc.))), AIDS, allergy, inflammation, neurodegenerative disease (e.g., Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, pigmentary retinitis, cerebellar degeneration, etc.),. . .

DETD . . . invention may be the result of hydrophobic, hydrophilic, ionic and/or covalent associations and/or may be indirectly linked, by for example, liposome formation. Thus, in one embodiment, multimers of the invention, such as, for example, homodimers or homotrimers, are formed when proteins. . .

DETD . . . which is herein incorporated by reference in its entirety). Additionally, techniques known in the art may be applied to generate liposomes containing the protein components desired to be contained in the multimer of the invention (see, e.g., U.S. Pat. No. 5,478,925,. . .

DETD . . . recombinant polypeptides of the invention which contain a transmembrane domain and which can be incorporated by membrane reconstitution techniques into liposomes (see, e.g., U.S. Pat. No. 5,478,925, which is herein incorporated by reference in its entirety).

DETD . . . (TAXOL", Bristol-Myers Squibb Oncology, Princeton, N.J.) doxetaxel (TAXOTERE", Rhone-Poulenc Rorer, Antony, France), gemcitabine, ifosfamide, vinorelbine, navelbine, novantrone, teniposide, aminopterin, xeloda, ibandronate, CPT-I 1, topoisomerase inhibitor RFS 2000, difluoromethylornithine (DMFO), retinoic acid, esperamicins, capecitabine, and pharmaceutically acceptable salts, acids or derivatives of. . .

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the polypeptides of the invention can be placed under the control of a strong constitutive. . .

DETD . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

DETD [0406] Various delivery systems are known and can be used to administer a compound of the invention, e.g., encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the compound, receptor-mediated endocytosis (see, e.g., Wu and Wu, 1987, J. Biol. Chem.. . .

DETD [0408] In another embodiment, the compound or composition can be delivered in a vesicle, in particular a liposome (see Langer, 1990, Science 249:1527-1533; Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 353- 365 (1989); Lopez-Berestein,. . .

DETD . . . decrease hemostatic or thrombolytic activity could be used to inhibit or dissolve clotting, important in the treatment of heart attacks (infarction), strokes, or scanning.

DETD . . . and rheumatoid arthritis) myelodysplastic syndromes (such as aplastic anemia), graft v. host disease, ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), liver injury (such as hepatitis related liver injury, ischemia/reperfusion injury, cholestosis (bile duct injury) and liver. . .

DETD . . . arrest, congestive heart failure, congestive cardiomyopathy, paroxysmal dyspnea, cardiac edema, heart hypertrophy, congestive cardiomyopathy, left ventricular hypertrophy, right ventricular hypertrophy, post-infarction heart rupture, ventricular septal rupture, heart valve diseases, myocardial diseases, myocardial ischemia, pericardial effusion, pericarditis (including constrictive and tuberculous), pneumopericardium,. . .

DETD [0577] Myocardial ischemias include coronary disease, such as angina pectoris, coronary aneurysm, coronary arteriosclerosis, coronary thrombosis, coronary vasospasm, myocardial infarction and myocardial stunning.

DETD . . . cerebral embolism and thrombosis, carotid artery thrombosis, sinus thrombosis, Wallenberg's syndrome, cerebral hemorrhage, epidural hematoma, subdural hematoma, subaraxhnoid hemorrhage, cerebral

infarction, cerebral ischemia (including transient), subclavian steal syndrome, periventricular leukomalacia, vascular headache, cluster headache, migraine, and vertebrobasilar insufficiency.

DETD . . . Amyotrophic lateral sclerosis, Retinitis pigmentosa, Cerebellar degeneration); myelodysplastic syndromes (such as aplastic anemia), ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), toxin-induced liver disease (such as that caused by alcohol), septic shock, cachexia and anorexia. Thus, in. . .

DETD . . . infection, nephritis, bone disease (e.g., osteoporosis), atherosclerosis, pain, cardiovascular disorders (e.g., neovascularization, hypovascularization or reduced circulation (e.g., ischemic disease (e.g., myocardial infarction, stroke, etc.)), AIDS, allergy, inflammation, neurodegenerative disease (e.g., Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, pigmentary retinitis, cerebellar degeneration, etc.),. . .

DETD . . . Sustained-release compositions also include liposomally entrapped compositions of the invention (see generally, Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 317 -327 and 353-365 (1989)). Liposomes containing TNF delta and/or TNF epsilon polypeptide my be prepared by methods known per se: DE 3,218,121; Epstein et al.,. . . 88,046; EP 143,949; EP 142,641; Japanese Pat. Appl. 83-118008; U.S. Pat. Nos. 4,485,045 and 4,544,545; and EP 102,324. Ordinarily, the liposomes are of the small (about 200-800 Angstroms) unilamellar type in which the lipid content is greater than about 30 mol.. . .

DETD . . . solution, and dextrose solution. Non-aqueous vehicles such as fixed oils and ethyl oleate are also useful herein, as well as liposomes.

DETD . . . be used for therapeutic administration must be sterile. Sterility is readily accomplished by filtration through sterile filtration membranes (e.g., 0.2 micron membranes). Therapeutic TNF delta and/or TNF epsilon polypeptide compositions generally are placed into a container having a sterile access port,. . .

DETD . . . prognose thrombotic related events including, but not limited to, stroke (and recurrent stroke), heart attack, deep vein thrombosis, pulmonary embolism, myocardial infarction, coronary artery disease (e.g., antibody -mediated coronary artery disease), thrombosis, graft reocclusion following cardiovascular surgery (e.g., coronary arterial bypass grafts,. . .

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the polypeptides of the invention can be placed under the control of a strong constitutive. . .

DETD . . . cells through any means known in the art. Such means include, but are not limited to, electroporation, the use of liposomes, and CaPO.sub.4 precipitation. In one alternative, the retroviral plasmid vector may be encapsulated into a liposome, or coupled to a lipid, and then administered to a host.

DETD . . . are administered as naked polynucleotides via electroporation. However, the polynucleotide constructs may also be administered with transfection-facilitating agents, such as liposomes, viral sequences, viral particles, precipitating agents, etc. Such methods of delivery are known in the art.

DETD . . . from any delivery vehicle that acts to assist, promote, or facilitate entry into the cell, including viral sequences, viral particles, liposome formulations, lipofectin or precipitating agents and the like. However, the TNF Delta and/or TNF Epsilon

polynucleotides may also be delivered in liposome formulations (such as those taught in Felgner P. L., et al. Ann. NY Acad. Sci. 772:126-139 (1995), and Abdallah B.,. . .

DETD . . . methodology. The template DNA, which may be either circular or linear, is either used as naked DNA or complexed with liposomes . The quadriceps muscles of mice are then injected with various amounts of the template DNA.

L22 ANSWER 19 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2002:112873 USPATFULL			
TITLE:	Use of insulin for the treatment of cartilagenous disorders			
INVENTOR(S):	Filvaroff, Ellen H., San Francisco, CA, UNITED STATES Okumu, Franklin W., Oakland, CA, UNITED STATES			
PATENT ASSIGNEE(S):	GENENTECH, INC. (U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20020058614	A1	20020516	<--
	US 6689747	B2	20040210	
APPLICATION INFO.:	US 2001-815229	A1	20010322	(9)
	NUMBER		DATE	
PRIORITY INFORMATION:	US 2000-192103P		20000324 (60)	
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			
LEGAL REPRESENTATIVE:	GENENTECH, INC., 1 DNA WAY, SOUTH SAN FRANCISCO, CA, 94080			
NUMBER OF CLAIMS:	48			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	26 Drawing Page(s)			
LINE COUNT:	5581			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . by the formation of subchondral cysts as a result of focal resorption. Agents which inhibit bone resorption, i.e. osteoprotegerin or bisphosphonates have shown promising results in animal model of arthritis. Kong et al. Nature 402: 304-308.

DETD . . . tPA). Alternatively still, cartilage agent includes factors which act indirectly on cartilage by affecting the underlying bone (i.e., osteofactors, e.g. bisphosphonates or osteoprotegerin) or the surrounding synovium (i.e., synovial factors) or anti-inflammatory factors (e.g., anti-TNF-α, IL1ra, IL-4, IL-10, IL-13, NSAIDs). For. . .

DETD [0161] A "liposome" is a small vesicle composed of various types of lipids, phospholipids and/or surfactant which is useful for delivery of a drug (such as the insulin and insulin variants disclosed herein) to a mammal. The components of the liposome are commonly arranged in a bilayer formation, similar to the lipid arrangement of biological membranes.

DETD [0262] Methods of transfection include CaCl.sub.2, CaPO.sub.4, liposome-mediated and electroporation. Depending on the host cell used, transformation is performed using standard techniques appropriate to such cells. The calcium. . .

DETD . . . the invention can be administered for the treatment of cartilagenous disorders in the form of pharmaceutical compositions. Additionally, lipofections or liposomes can also be used to deliver the insulin or insulin variant into cells and the target area.

DETD . . . example, hydroxymethylcellulose or gelatin-microcapsules and

poly-(methylmethacrylate) microcapsules, respectively. Such preparations can be administered in colloidal drug delivery systems (for example, liposomes, albumin microspheres, microemulsions, nano-particles and nanocapsules) or in macroemulsions. Such techniques are disclosed in Remington's Pharmaceutical Sciences, 16th Edition (or. . .

DETD . . . a liquid medium. The solid particles of a suspension can range in size from a few nanometers to hundreds of microns, and include microspheres, microcapsules and nanospheres. Emulsions, on the other hand, are a mixture of two or more immiscible liquids. . . sustained-release formulation is disclosed in WO 97/25563. Additionally, emulsions for use with biological materials include multiple emulsions, microemulsions, microdroplets and liposomes. Microdroplets are unilamellar phospholipid vesicles that consist of a spherical lipid layer with an oil phase inside. E.g., U.S. Pat. No. 4,622,219 and U.S. Pat. No. 4,725,442. Liposomes are phospholipid vesicles prepared by mixing water-imsoluble polar lipids with an aqueous solution.

DETD . . . involves the presence of neutropenia, thrombocytopenia and splenomegaly. This can be accompanied by vasculitis in multiple organs and occurrence of infarcts, skin ulcers and gangrene. Patients often also develop rheumatoid nodules in the subcutis tissue overlying affected joints; in late stages,. . .

DETD [0333] Additionally, inhibition of molecules with proinflammatory properties may have therapeutic benefit in reperfusion injury; stroke; myocardial infarction; atherosclerosis; acute lung injury; hemorrhagic shock; bum; sepsis/septic shock; acute tubular necrosis; endometriosis; degenerative joint disease and pancreatis.

DETD . . . digested overnight in 0.06% collagenase B in Ham's F12+10% fetal bovine serum. The cells were then filtered through a 70 micron nylon filter and seeded in Ham's F12 medium without serum.

DETD . . . L-Glutamine, 0.1 mM sodium pyruvate (Gibco), 20 μg/ml Gentamicin (Gibco) and 1.25 mg/L Amphotericin B. Articular cartilage was aliquoted into micronics tubes (approximately 55 mg per tube) and incubated for at least 24 hours in the above media. Media was harvested. . .

DETD . . . L-Glutamine, 0.1 mM sodium pyruvate (Gibco), 20 μg/ml Genamicin (Gibco) and 1.25 mg/L Amphotericin B. Articular cartilage was aliquoted into Micronics tubes (approximately 35 mg per tube) and incubated for at least 24 hours in the above media. Media was harvested. . .

DETD . . . particle diameter distribution of the microspheres was measured on a Malvern Masterisizer X and were found to be about 30 microns (Table I). Protein loading of formulation I and formulation II was found to be 5.56% and 5.59% respectively (Table I).. . .

DETD . . . with 3-5 volumes of metal chelate column buffer (6 M guanidine, 20 mM Tris, pH 7.4) and filtered through 0.22 micron filters to clarify. Depending on condition, the clarified extract is loaded onto a 5 ml Qiagen Ni-NTA metal chelate column. . .

DETD . . . concentration of 0.4% (pH of approximately 3). Before further purification of the protein, the solution is filtered through a 0.22 micron filter and acetonitrile is added to 2-10% final concentration. The refolded protein is chromatographed on a Poros R1/H reversed phase. . .

DETD . . . from the transfected cells (0.5 to 3 L) was harvested by centrifugation to remove the cells and filtered through 0.22 micron filters. For the poly-His tagged constructs, the protein comprising the sequence is purified using a Ni-NTA column (Qiagen). Before purification,. . .

CLM What is claimed is:
22. The method of claim 19, wherein the osteo-factor is selected from the group consisting of bisphosphonates, osteoprotegerin.

CLM What is claimed is:
46. The method of claim 43, wherein the osteo-factor is selected from the group consisting of bisphosphonates, osteoprotegerin.

L22 ANSWER 20 OF 20 USPAT2 on STN
ACCESSION NUMBER: 2002:126317 USPAT2
TITLE: Tumor necrosis factor delta polypeptides
INVENTOR(S): Yu, Guo-Liang, Berkeley, CA, United States
Ni, Jian, Germantown, MD, United States
Gentz, Reiner L., Rockville, MD, United States
Dillon, Patrick J., Carlsbad, CA, United States
PATENT ASSIGNEE(S): Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6541224	B2	20030401	<--
APPLICATION INFO.:	US 2001-879919		20010614 (9)	

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-815783, filed on 12 Mar 1997

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-293499P	20010525 (60)
	US 2001-277978P	20010323 (60)
	US 2001-276248P	20010316 (60)
	US 2000-254875P	20001213 (60)
	US 2000-241952P	20001023 (60)
	US 2000-211537P	20000615 (60)
	US 1996-16812P	19960314 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Stucker, Jeffrey
ASSISTANT EXAMINER: Seharaseyon, Jegatheesan
LEGAL REPRESENTATIVE: Human Genome Sciences, Inc.
NUMBER OF CLAIMS: 50
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT: 13036
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . infection, nephritis, bone disease (e.g., osteoporosis), atherosclerosis, pain, cardiovascular disorders (e.g., neovascularization, hypovascularization or reduced circulation (e.g., ischemic disease (e.g., myocardial infarction, stroke, etc.))), AIDS, allergy, inflammation, neurodegenerative disease (e.g., Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, pigmentary retinitis, cerebellar degeneration, etc.),. . .
DETD . . . invention may be the result of hydrophobic, hydrophilic, ionic and/or covalent associations and/or may be indirectly linked, by for example, liposome formation. Thus, in one embodiment, multimers of the invention, such as, for example, homodimers or homotrimers, are formed when proteins. . .
DETD . . . which is herein incorporated by reference in its entirety). Additionally, techniques known in the art may be applied to generate

liposomes containing the protein components desired to be contained in the multimer of the invention (see, e.g., U.S. Pat. No. 5,478,925,. . .

DETD . . . recombinant polypeptides of the invention which contain a transmembrane domain and which can be incorporated by membrane reconstitution techniques into liposomes (see, e.g., U.S. Pat. No. 5,478,925, which is herein incorporated by reference in its entirety).

DETD . . . (TAXOL", Bristol-Myers Squibb Oncology, Princeton, N.J.) doxetaxel (TAXOTERE", Rh6ne-Poulenc Rorer, Antony, France), gemcitabine, ifosfamide, vinorelbine, navelbine, novantrone, teniposide, aminopterin, xeloda, ibandronate, CPT-I 1, topoisomerase inhibitor RFS 2000, difluoromethylornithine (DMFO), retinoic acid, esperamicins, capecitabine, and pharmaceutically acceptable salts, acids or derivatives of. . .

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the polypeptides of the invention can be placed under the control of a strong constitutive. . .

DETD . . . microparticle bombardment (e.g., a gene gun; Biolistic, Dupont), or coating with lipids or cell-surface receptors or transfecting agents, encapsulation in liposomes, microparticles, or microcapsules, or by administering them in linkage to a peptide which is known to enter the nucleus, by. . .

DETD Various delivery systems are known and can be used to administer a compound of the invention, e.g., encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the compound, receptor-mediated endocytosis (see, e.g., Wu and Wu, 1987, J. Biol. Chem.. . .

DETD In another embodiment, the compound or composition can be delivered in a vesicle, in particular a liposome (see Langer, 1990, Science 249:1527-1533; Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 353-365 (1989); Lopez-Berestein, ibid.,. . .

DETD . . . decrease hemostatic or thrombolytic activity could be used to inhibit or dissolve clotting, important in the treatment of heart attacks (infarction), strokes, or scanning.

DETD . . . and rheumatoid arthritis) myelodysplastic syndromes (such as aplastic anemia), graft v. host disease, ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), liver injury (such as hepatitis related liver injury, ischemia/reperfusion injury, cholestosis (bile duct injury) and liver. . .

DETD . . . arrest, congestive heart failure, congestive cardiomyopathy, paroxysmal dyspnea, cardiac edema, heart hypertrophy, congestive cardiomyopathy, left ventricular hypertrophy, right ventricular hypertrophy, post-infarction heart rupture, ventricular septal rupture, heart valve diseases, myocardial diseases, myocardial ischemia, pericardial effusion, pericarditis (including constrictive and tuberculous), pneumopericardium,. . .

DETD Myocardial ischemias include coronary disease, such as angina pectoris, coronary aneurysm, coronary arteriosclerosis, coronary thrombosis, coronary vasospasm, myocardial infarction and myocardial stunning.

DETD . . . cerebral embolism and thrombosis, carotid artery thrombosis, sinus thrombosis, Wallenberg's syndrome, cerebral hemorrhage, epidural hematoma, subdural hematoma, subaraxhnoid hemorrhage, cerebral infarction, cerebral ischemia (including transient), subclavian steal syndrome, periventricular leukomalacia, vascular headache, cluster

headache, migraine, and vertebrobasilar insufficiency.

DETD . . . Amyotrophic lateral sclerosis, Retinitis pigmentosa, Cerebellar degeneration); myelodysplastic syndromes (such as aplastic anemia), ischemic injury (such as that caused by myocardial infarction, stroke and reperfusion injury), toxin-induced liver disease (such as that caused by alcohol), septic shock, cachexia and anorexia. Thus, in. . .

DETD . . . infection, nephritis, bone disease (e.g., osteoporosis), atherosclerosis, pain, cardiovascular disorders (e.g., neovascularization, hypovascularization or reduced circulation (e.g., ischemic disease (e.g., myocardial infarction, stroke, etc.)), AIDS, allergy, inflammation, neurodegenerative disease (e.g., Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, pigmentary retinitis, cerebellar degeneration, etc.),. . .

DETD Sustained-release compositions also include liposomally entrapped compositions of the invention (see generally, Langer, Science 249:1527-1533 (1990); Treat et al., in Liposomes in the Therapy of Infectious Disease and Cancer, Lopez-Berestein and Fidler (eds.), Liss, New York, pp. 317-327 and 353-365 (1989)). Liposomes containing TNF delta and/or TNF epsilon polypeptide my be prepared by methods known per se: DE 3,218,121; Epstein et al.,. . . 88,046; EP 143,949; EP 142,641; Japanese Pat. Appl. 83-118008; U.S. Pat. Nos. 4,485,045 and 4,544,545; and EP 102,324. Ordinarily, the liposomes are of the small (about 200-800 Angstroms) unilamellar type in which the lipid content is greater than about 30 mol.. . .

DETD . . . solution, and dextrose solution. Non-aqueous vehicles such as fixed oils and ethyl oleate are also useful herein, as well as liposomes.

DETD . . . be used for therapeutic administration must be sterile. Sterility is readily accomplished by filtration through sterile filtration membranes (e.g., 0.2 micron membranes). Therapeutic TNF delta and/or TNF epsilon polypeptide compositions generally are placed into a container having a sterile access port,. . .

DETD . . . prognose thrombotic related events including, but not limited to, stroke (and recurrent stroke), heart attack, deep vein thrombosis, pulmonary embolism, myocardial infarction, coronary artery disease (e.g., antibody-mediated coronary artery disease), thrombosis, graft reocclusion following cardiovascular surgery (e.g., coronary arterial bypass grafts, recurrent. . .

DETD . . . the cell genome) or transfection procedures, including, but not limited to, the use of plasmids, cosmids, YACs, naked DNA, electroporation, liposomes, etc. The coding sequence of the polypeptides of the invention can be placed under the control of a strong constitutive. . .

DETD . . . cells through any means known in the art. Such means include, but are not limited to, electroporation, the use of liposomes, and CaPO.sub.4 precipitation. In one alternative, the retroviral plasmid vector may be encapsulated into a liposome, or coupled to a lipid, and then administered to a host.

DETD . . . are administered as naked polynucleotides via electroporation. However, the polynucleotide constructs may also be administered with transfection-facilitating agents, such as liposomes, viral sequences, viral particles, precipitating agents, etc. Such methods of delivery are known in the art.

DETD . . . from any delivery vehicle that acts to assist, promote, or facilitate entry into the cell, including viral sequences, viral particles, liposome formulations, lipofectin or precipitating agents and the like. However, the TNF Delta and/or TNF Epsilon polynucleotides may also be delivered in liposome formulations (such as those taught in Felgner P. L., et al. Ann. NY Acad. Sci.

772:126-139 (1995), and Abdallah B.,. . .

DETD . . . methodology. The template DNA, which may be either circular or linear, is either used as naked DNA or complexed with liposomes . The quadriceps muscles of mice are then injected with various amounts of the template DNA.

CLM What is claimed is:
7. The composition of claim 6, wherein the carrier comprises a liposome.

CLM What is claimed is:
15. The composition of claim 14, wherein the carrier comprises a liposome.

CLM What is claimed is:
23. The composition of claim 22, wherein the carrier comprises a liposome.

CLM What is claimed is:
31. The composition of claim 30, wherein the carrier comprises a liposome.

CLM What is claimed is:
39. The composition of claim 38, wherein the carrier comprises a liposome.

CLM What is claimed is:
47. The composition of claim 46, wherein We carrier comprises a liposome.